Pioneer sound.vision.soul

DVR-550HX-S HDD/DVD RECORDER

HDD
HARD DISK DRIVE

PVD
RECORDER

RECORDER

DVD-ReW-it-able

COMPACT

RW

HOMI

Thank you for buying this Pioneer product.

Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

IMPORTANT



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION:

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

D3-4-2-1-1 En-A

WARNING

This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filled with liquid near this equipment (such as a vase or flower pot) or expose it to dripping, splashing, rain or moisture.

WARNING

Before plugging in for the first time, read the following section carefully.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., 230 V or 120 V) written on the rear panel.

CAUTION

This product is a class 1 laser product, but this product contains a laser diode higher than Class 1.

To ensure continued safety, do not remove any covers or attempt to gain access to the rear of the product. Refer all servicing to qualified personnel.

The following caution label appears on your unit. Location: inside of the unit

CLASS 1 LASER PRODUCT

CAUTION
CLASS 38 VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO THE BEAM.
ATTENTION
ATTENTION
RADIATIONS LASER VISIBLES ET INVISIBLES DE CLASSE 38 QUAND QUIPET. ÉVITEZ TOUT EXPOSITION AU FAISCEAU.

RADIATION
KLASSE 38 SYNLIG GO LOSYNLIG LASERSTRALING VED ÁBINING. UNIOSÓ UDSÆTTELSE FOR STRÁLING.

KLASS 38 SYNLIG GO LOSYNLIG LASERSTRÁLINNEN NÃR DEBNA DEL ÂR ÔPPIND. UNDIVIN ATT UTSÄTTA DIG FÖR STRÁLEN.

BEG GÉTFREITER ABDECOMUN SIT SICHTBARE UNDUNISICHTBARE LASERSTRAHLIUNG DER KLASSE 38 UM GERÄTEINMEREN VORHANDEN.

NORT DEN LASERSTRAHL LUNSSETZEN ET LASES 38 VISIBLE E INVISIBLE. EVITE LA EXPOSICIÓN A LOS RAYOS LÁSER.

VARTIE
LESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYNÄTTÖMÄLLE LUOKAN 38 LASERSÄTELYLLE. ÄLÄ KATSO SÄTEESSEN.

1 別問音音子CLASS 38可見和不可見適節対義解号・語の受達施封束籍射。

ここを開くと CLASS 3B の可視レーザ光及び不可視レーザ光が出ます。ビームを直接見たり、触れたりしないこと。

D3-4-2-1-8_B_En

WARNING

注意

To prevent a fire hazard, do not place any naked flame sources (such as a lighted candle) on the equipment.

D3-4-2-1-7a_A_En

Operating Environment

Operating environment temperature and humidity: +5 °C to +35 °C (+41 °F to +95 °F); less than 85 %RH (cooling vents not blocked)

Do not install this unit in a poorly ventilated area, or in locations exposed to high humidity or direct sunlight (or strong artificial light)

D3-4-2-1-7c_A_En

VENTILATION CAUTION

When installing this unit, make sure to leave space around the unit for ventilation to improve heat radiation (at least 10 cm at top, 10 cm at rear, and 10 cm at each side).

WARNING

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product, and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered with items (such as newspapers, table-cloths, curtains) or by operating the equipment on thick carpet or a bed.

D3-4-2-1-7b, A_En

If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted. Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel. If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal. The equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation).

CAUTION

The STANDBY/ON switch on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident. To avoid fire hazard, the power cord should also be unplugged from the AC outlet when left unused for a long period of time (for example, when on vacation).

This product is for general household purposes. Any failure due to use for other than household purposes (such as long-term use for business purposes in a restaurant or use in a car or ship) and which requires repair will be charged for even during the warranty period.

K041_En

POWER-CORD CAUTION

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

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Chapter 1 Before you start

What's in the box

Please confirm that the following accessories are in the box when you open it;

- · Remote control
- AA/R6P dry cell batteries x 2
- Audio/video cable (red/white/yellow)
- RF antenna cable
- Power cable
- These operating instructions

Putting the batteries in the remote control

 Insert two AA/R6P batteries into the battery compartment following the indications (⊕,⊝) inside the compartment.



A Important

Incorrect use of batteries can result in hazards such as leakage and bursting. Please observe the following:

- Don't mix new and old batteries together.
- Don't use different kinds of batteries together — although they may look similar, different batteries may have different voltages.
- Make sure that the plus and minus ends of each battery match the indications in the battery compartment.

- Remove batteries from equipment that isn't going to be used for a month or more.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

WARNING

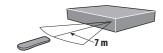
Do not use or store batteries in direct sunlight or other excessively hot place, such as inside a car or near a heater. This can cause batteries to leak, overheat, explode or catch fire. It can also reduce the life or performance of batteries.

D3-42-33 En

Using the remote control

Please keep in mind the following when using the remote control:

- Make sure that there are no obstacles between the remote and the remote sensor on the unit.
- Remote operation may become unreliable if strong sunlight or fluorescent light is shining on the unit's remote sensor.
- Remote controllers for different devices can interfere with each other. Avoid using remotes for other equipment located close to this unit.
- Replace the batteries when you notice a fall off in the operating range of the remote.
- When the batteries run down or you change the batteries, the remote control mode is reset to Recorder 1. See Remote Control Mode on page 117.
- Use within the operating range in front of the remote control sensor on the front panel, as shown.



 You can control this recorder using the remote sensor of another Pioneer component via the **CONTROL IN** jack on the rear panel. See *Rear panel* connections on page 14 for more information.

Disc/content format playback compatibility

Compatible media

- DVD-RW ver. 1.1 / 1x / 1x to 2x, ver. 1.2 / 2x to 4x / 2x to 6x
- DVD-R ver. 2.0 /1x / 1x to 4x / 1x to 8x / 1x to 16x, ver. 2.1 / 1x to 8x / 1x to 16x
- DVD+RW 1x to 2.4x / 1x to 4x / 3.3x to 8x
- DVD+R 1x to 2.4x / 1x to 4x / 1x to 8x / 1x to 16x
- DVD-RAM ver. 2.0 / 2x, ver. 2.1 / 2x / 2x to 3x / 2x to 5x, ver. 2.2 / 2x / 2x to 3x / 2x to 5x
- DVD-R DL ver. 3.0 / 2x to 4x / 2x to 8x
- DVD+R DL 2.4x / 2.4x to 8x

Note that older models of DVD recorders and DVD writers may reject DVD-RW ver. 1.2 discs and/or corrupt the data on the disc. If you want to share DVD-RW discs between this recorder and an older recorder/writer, we recommend using ver. 1.1 discs.

The following table shows older Pioneer DVD recorders' limited compatibility with DVD-RW ver. 1.2 discs.

Model	Playable	Recordable
DVR-7000	Yes*1,2,3	No
DVR-3100/ DVR-5100H	Yes* ¹	No

^{*1} Discs should be finalized in this recorder before playing. Unfinalized VR mode and Video mode discs may not play.

Readable file system

This recorder can play DVDs recorded under the following file systems¹: ISO 9660*, UDF 1.02. UDF 1.50, UDF 2.00, UDF 2.01.

* ISO 9660 Level 1 or 2 compliant. Romeo and Joliet file systems are both compatible with this recorder.

Note

^{*2} Cannot read the CPRM information will show in the display when you load a disc. However, this will not affect playback.

^{*3} Copy-once protected disc titles will not play.

^{1 •} Depending on the recording technique used, even files recorded in compatible file systems may not play correctly.

MP3/WMA files can be played back when recorded onto a DVD that contains no video files and uses the UDF 1.02, UDF 1.50, UDF 2.01 or ISO 9660 file systems.

HDD/DVD Recording and playback compatibility

This recorder can play and record all widely-used DVD disc types, and additionally provides HDD functionality. The table below shows some specific compatibility differences between the different disc types.

	HDD	DV	D-R	DVI	D-RW	DVD+R	DVD +RW	DVD- RAM
Marks used in this manual	HDD	DVD (VR) *1	DVD (Video)	DVD (VR) *1	DVD (Video) *2	DVD+R	DVD+RW	DVD-RAM *13, 16
Logos	HDD HARD DISK DRIVE	2	VD	DVD R W	RW 2	RW DVD+R	DVD - ReWritable	R A M
Re-recordable/ Erasable	•	*3	*3	•	•	*3	• *14	•
Editing of recorded programmes	•	•	• *4	•	• *4	• *4	• *4	•
Recording of Copyonce protected material	•	● *12		● *12				● *12
Playback in other players/recorders	n/a	*5	● *6	*7	● *6	• *6, 15	● *8	● *9
Chase play	•							
16:9 and 4:3 programme recording	•	•		•				•
Bilingual broadcast recording of both audio channels	*10, 11	• *11		• *11				• *11

Notes to table

- *1 Must be initialized for VR mode recording (page 101).
- *2 Must be initialized for Video mode recording (page 101).
- *3 Erasable, but free space does not increase. *4 Cannot erase sections, edit chapters or use playlist
- *4 Cannot erase sections, edit chapters or use playlis editing.
- *5 Must be compatible with DVD-R(VR) playback.
- *6 Finalize using this recorder (may not playback in some units) (page 50).
- *7 Must be compatible with DVD-RW(VR) playback.
- *8 Must be compatible with DVD+RW playback.
- *9 Must be compatible with DVD-RAM playback.
- *10 Only when HDD Recording Format is set to Video Mode Off (page 115).
- *11 Only when the recording mode is not set to LPCM.
- *12 CPRM-compatible discs only.

- *13 Take the disc out of the cartridge before use. Only Panasonic and Maxell discs have been tested to work reliably with this recorder. Discs from other makers may become unusable when recorded or edited.
- *14 Erasing a title does not increase the available recording time, nor increase the number of recordable titles left.
- *15 Must be compatible with DVD+R playback.
- *16 Depending on the disc, it may have to be initialized before it can be recorded (page 101). In this case, initialization will take about an hour.

is a trademark of DVD Format/Logo Licensing Corporation.

Using DVD-R DL/DVD+R DL discs

DVD-R DL (Dual-Layer) and DVD+R DL (Double-Layer) discs contain two recordable layers on a single side, giving about 1.8 times the recording capacity of a conventional single-layer disc. This unit can record to both DVD-R DL and DVD+R DL discs

- If you intend to play DVD-R DL (Video mode) or DVD+R DL discs recorded on this unit on other DVD recorders/players, you must finalize them. (Note that some DVD recorders/players may not play even finalized DL discs.)
- This logo indicates that the disc is a DVD-R DL or DVD+R DL disc:





Correct operation has been confirmed for DL discs:

- DVD-R DL ver. 3.0/2x to 4x Mitsubishi Kagaku Media (Verbatim)
- DVD-R DL ver. 3.0/2x to 8x Mitsubishi Kagaku Media (Verbatim) That's JVC
- DVD+R DL 2.4x
 Mitsubishi Kagaku Media (Verbatim)
 RICOH
- DVD+R DL 2.4x to 8x
 Mitsubishi Kagaku Media (Verbatim)
 RICOH

About DualDisc playback

A DualDisc is a new two-sided disc, one side of which contains DVD content –video, audio, etc. –while the other side contains non-DVD content such as digital audio material.

The non-DVD, audio side of the disc is not compliant with the CD Audio specification and therefore may not play.

It is possible that when loading or ejecting a DualDisc, the opposite side to that being played will be scratched. Scratched discs may not be playable.

The DVD side of a DualDisc plays in this product. DVD-Audio content will not play.

For more detailed information on the DualDisc specification, please refer to the disc manufacturer or disc retailer.

Other disc compatibility

In addition to DVD, this recorder is compatible with a wide range of disc types (media) and formats. Playable discs will generally feature one of the logos on the disc and/or disc packaging shown below. Note however that some disc types, such as recordable CD (and DVD), may be in an unplayable format — see below for further compatibility information.



CD-R/-RW compatibility

This recorder cannot record CD-R or CD-RW discs.

- Readable formats: CD-Audio, Video CD/ Super VCD, ISO 9660 CD-ROM* containing MP3, WMA, JPEG or DivX files
 - * ISO 9660 Level 1 or 2 compliant. CD physical format: Mode1, Mode2 XA Form1. Romeo and Joliet file systems are both compatible with this recorder.
- Multi-session playback: Yes (except CD-Audio and Video CD/Super VCD)
- Unfinalized disc playback: CD-Audio only

Compressed audio compatibility

- Compatible media: DVD-ROM, DVD-R/-RW, DVD+R/+RW, DVD-RAM, CD-ROM, CD-R, CD-RW, USB
- Compatible formats: MPEG-1 Audio Layer 3 (MP3), Windows Media Audio (WMA)

- Sampling rates: 32 kHz, 44.1 kHz or 48 kHz
- Bit-rates: Any (128 kbps or higher recommended)
- Variable bit-rate (VBR) MP3 playback: Yes
- VBR WMA playback: No
- WMA encoder compatibility: Windows Media Codec 8 (files encoded using Windows Media Codec 9 may be playable but some parts of the specification are not supported; specifically, Pro, Lossless, Voice and VBR)
- DRM (Digital Rights Management)¹ file playback: No
- File extensions: .mp3, .wma (these must be used for the recorder to recognize MP3 and WMA files – do not use for other file types)
- File structure: Up to 99 folders/999 files (if these limits are exceeded, only files and folders up to these limits are playable)

WMA (Windows Media™ Audio) compatibility

This recorder can playback Windows Media Audio content.

WMA is an acronym for Windows Media Audio and refers to an audio compression technology developed by Microsoft Corporation. WMA content can be encoded by using Windows Media Player for Windows XP, Windows Media Player 9 or Windows Media Player 10 series.

Windows Media is a trademark of Microsoft Corporation.

This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from Microsoft Licensing, Inc.

DivX video compatibility



DivX is a compressed digital video format created by the DivX® video codec from DivX, Inc. This recorder can play DivX video files burned on CD-R/-RW/-ROM discs. Keeping the same terminology as DVD-Video, individual DivX video files are called "Titles". When naming files/titles on a CD-R/-RW disc prior to burning, keep in mind that by default they will be played in alphabetical order.

- Official DivX[®] Certified product.
- Plays all versions of DivX[®] video (including DivX[®] 6) with standard playback of DivX[®] media files.
- File extensions: .avi and .divx (these must be used for the recorder to recognize DivX video files). Note that all files with the .avi extension are recognized as MPEG4, but not all of these are necessarily DivX video files and therefore may not be playable on this recorder.
- File structure: Up to 99 folders or 999 files.

DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license



DivX® VOD content

DivX

In order to play DivX VOD (video on demand) content on this recorder, you first need to register the recorder with your DivX VOD content provider. You do this by generating a DivX VOD registration code, which you submit to your provider.

Some DivX VOD content may only be playable a fixed number of times. When you load a disc containing this type of DivX VOD content, the remaining number of plays is shown on-screen and you then have the option of playing the disc (thereby using up one of the remaining plays), or stopping. If you load a disc that contains expired DivX VOD content (for example, content that has zero remaining plays), the message **Rental Expired** is displayed.

If your DivX VOD content allows an unlimited number of plays, then you may load the disc into your recorder and play the content as often as you like, and no message will be displayed.

Important

- DivX VOD content is protected by a DRM system. This restricts playback of content to specific, registered devices.
- If you load a disc that contains DivX VOD content not authorized for this recorder, the message **Authorization Error** is displayed and the content will not play.
- Resetting the recorder (as described in Resetting the recorder on page 136) will not cause you to lose your registration code.

JPEG file compatibility

- Compatible formats: Baseline JPEG and EXIF 2.2* still image files
 File

 Till

 *
 - *File format used by digital still cameras
- Sampling ratio: 4:4:4, 4:2:2, 4:2:0
- Horizontal resolution: 160 to 5120 pixels
- Vertical resolution: 120 to 3840 pixels
- Progressive JPEG compatible: No

- File extensions: .jpg, .jpeg, .jpf, .jfif (must be used for the recorder to recognize JPEG files – do not use for other file types)
- File structure: The recorder can load up to 99 folders/999 files at one time (if there are more files/folders that this on the disc then more can be reloaded)

PC-created disc compatibility

Discs recorded using a personal computer may not be playable in this unit due to the setting of the application software used to create the disc. In these particular instances, check with the software publisher for more detailed information.

Discs recorded in packet write mode (UDF format) are not compatible with this recorder.

Check the DVD-R/-RW or CD-R/-RW software disc boxes for additional compatibility information.

Dolby Digital



Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

DTS



"DTS" and "DTS Digital Out" are registered trademarks of DTS, Inc.

DVB

The Digital Video Broadcasting Project, or DVB for short, is a set of open standards for digital broadcasting, covering terrestrial, cable and satellite broadcasts.

Based around the MPEG-2 coding system, these open standards ensure that compliant systems are able to work together, independent of manufacturer.

DVB is extremely flexible, being able to deliver virtually any kind of digital content to the home, including High Definition and Standard Definition TV, broadband multimedia content and interactive services.

DVB is a registered trademark of the DVB Project.

About the internal hard disk drive

The internal hard disk drive (HDD) is a fragile piece of equipment. When used without the proper care or in the wrong conditions, it is possible that recorded contents may be damaged or lost entirely, in some cases making even normal playback or recording impossible. Please understand that in the event of repair or replacement of the HDD or related components, all your HDD recordings will be lost.

Please use the recorder following the guidelines below to protect against possible HDD failure.

The HDD should not be regarded as a place to store recordings permanently. We recommend that you back up your important recordings onto DVD discs in order to protect against accidental loss.

Pioneer cannot under any circumstances accept responsibility for any direct or indirect loss arising from any inconvenience or loss of recorded material resulting from HDD failure.

- Do not move the recorder while it is on.
- Install and use the recorder on a stable, level surface.
- · Do not block the rear vent/cooling fan.
- Do not use the recorder in excessively hot or humid places, or in places that may be subject to sudden changes in temperature. Sudden changes in temperature can cause condensation to form inside the recorder. This can be a cause of HDD failure.
- While the recorder is switched on, do not unplug from the wall socket or switch the electricity off from the breaker switch.
- Do not move the recorder immediately after switching it off. If you need to move the recorder, please follow the steps below:
 - 1 After the message **POWER OFF** is shown on the front panel display, wait at least two minutes.
 - **2** Unplug from the wall socket.
 - **3** Move the recorder.
- If there's a power failure while the recorder is on there is a chance that some data on the HDD will be lost.
- The HDD is very delicate. If used over time in an improper manner or in an unsuitable environment, it is possible that the HDD will fail. Signs of problems include playback unexpectedly freezing and noticeable block noise (mosaic) in the picture. However, sometimes there will be no warning signs of HDD failure. If the HDD fails, no playback of recorded material will be possible. In this case it will be necessary to replace the HDD unit.

Optimizing HDD performance

As you record and edit material on the HDD, the data on the disk becomes fragmented, eventually affecting the recorder's performance. Before this happens, the

recorder will warn you that it is time to optimize the HDD (which you can do from the Disc Setup menu; see *Optimize HDD* on page 101).

Symbols used in this manual

The following icons are provided to help you quickly identify which instructions you need for which kind of disc.

HDD)	HDD

Any type of DVD disc

(recordable or playback only), finalized or not.

DVD-Video Commercially produced

DVD, finalized Video mode

DVD-R/-RW.

DVD (Video) Video mode DVD-R/-RW

(unfinalized)

DVD (VR) VR mode DVD-R/-RW

DVD+R DVD+R

DVD+RW DVD+RW

DVD-RAM DVD-RAM

(D) Audio CD

Video CD Video CD

Super VCD Super VCD

WMA/MP3 WMA or MP3 files

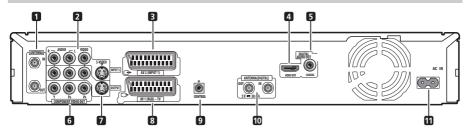
DivX DivX files

ALL All of the above

Chapter 2

Connections

Rear panel connections



1 ANTENNA IN (RF IN)/OUT

Connect your TV antenna to the **ANTENNA IN (RF IN)** jack. The signal is passed through to the **ANTENNA OUT** jack for connection to your TV.

2 INPUT 3

Stereo analog audio, video and S-video inputs for connection to a VCR or other source component.

3 AV2 (INPUT 1) AV connector

Audio/video input/output SCART-type AV connector for connecting to a VCR, or other equipment with a SCART connector. The input accepts video, S-video and RGB. See AV2/L1 In on page 110 for how to set this up.

4 HDMI OUT

HDMI output for high quality digital audio and video.

5 DIGITAL AUDIO OUT (COAXIAL)

Coaxial digital audio jack for connecting to an AV amplifier/receiver, Dolby Digital/DTS/ MPEG decoder or other equipment with a digital input.

6 COMPONENT VIDEO OUT

A high-quality video output for connecting to a TV or monitor with a component video input.

7 OUTPUT

Stereo analog audio, video and S-video outputs for connection to a TV or AV amplifier/receiver.

8 AV1 (RGB)-TV AV connector

Audio/video output SCART-type AV connector for connecting to a TV or other equipment with a SCART connector. The video output is switchable between video, S-video and RGB. See AV1 Out on page 110 for how to set this up.

9 CONTROL IN

Use to control this recorder from the remote sensor of another Pioneer component with a **CONTROL OUT** terminal and bearing the Pioneer and mark. Connect the **CONTROL OUT** of the other component to the **CONTROL IN** of this recorder using a miniplug cord.

10 ANTENNA (DIGITAL) IN/OUT

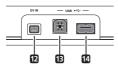
Connect your DTV antenna to the **ANTENNA** (**DIGITAL**) **IN** jack. The signal is passed through to the **ANTENNA** (**DIGITAL**) **OUT** jack for connection to your TV.

11 AC IN - Power inlet

Front panel connections

On the front panel there is a flip-down cover that hides more connections.

Left side:



12 DV IN

A DV input i.LINK connector, suitable for connecting a DV camcorder.

13 USB port (Type B)

USB port for connecting a PictBridge-compatible printer or PC.

14 USB port (Type A)

USB port for connecting a digital camera, keyboard or other USB device.

Right side:



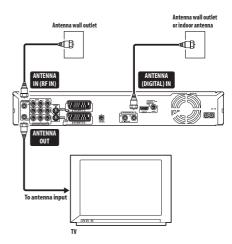
15 INPUT 2

Audio/video input (stereo analog audio; composite and S-video), especially suitable for camcorders, game consoles, portable audio, etc.

Connecting a TV antenna

This recorder has separate built-in TV tuners for terrestrial digital and terrestrial analog TV broadcasts.

If you are ready to receive digital broadcasts now, use the supplied RF antenna cables connect an antenna (either an antenna wall outlet or indoor antenna) to the **ANTENNA** (**DIGITAL**) **IN** connector. Next, connect the other RF antenna cable to connect an antenna to the **ANTENNA IN** (**RF IN**) connector. Lastly, connect the recorder to your TV from the **ANTENNA OUT** connector.

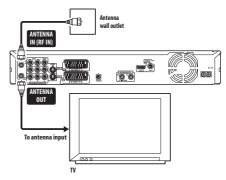


ng.

Important

- If there is only one antenna outlet on your wall, use a divider.
- Do not connect a component that can receive analog signals to the ANTENNA (DIGITAL) OUT.

If your area is not yet served with terrestrial digital services, connect your antenna's output to the **ANTENNA IN (RF IN)** connector using the supplied RF antenna cables. Next, connect the recorder to your TV from the **ANTENNA OUT** connector.



We strongly recommend using an outdoor antenna for better broadcast picture quality.

If, however, you want to use an indoor antenna, use one with a signal amplifier rated at 5 V, 30 mA and set *Aerial Power* to **On** in the Initial Setup menu (see page 108).

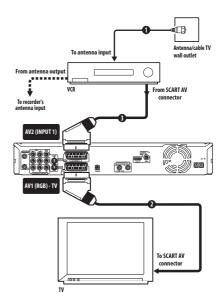
Easy connections

The setup described below is a basic setup that allows you to watch and record TV programmes, and play discs. Other types of connections are explained starting on the following page.



Important

- These connections use SCART cables. (not supplied). If your TV (or VCR) does not have a SCART connection, and you want to use the supplied audio/video cable, see Using the supplied audio/video cable on page 17.
- The AV1 (RGB)-TV AV connector can output ordinary (composite), S-video or RGB video, plus stereo analog audio. The AV2 (INPUT 1) connector accepts ordinary, S-video and RGB video input, as well as stereo analog audio. See AV1 Out and AV2/L1 In on page 110 for how to setup these options.
- · Before making or changing any rear panel connections, make sure that all components are switched off and unplugged from the wall outlet.



Connect your TV antenna to the recorder and TV.

See Connecting a TV antenna on page 15 for details.

- If you want to incorporate a VCR in your setup, connect it before the recorder (i.e., between the antenna wall outlet and the antenna input on the recorder).
- Use a SCART cable (not supplied) to connect the AV1 (RGB)-TV AV connector on this recorder to the SCART AV connector on your TV.
- Use another SCART cable to connect the AV2 (INPUT 1) AV connector to a SCART AV connector on your VCR.

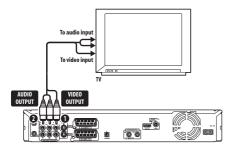


 This recorder has a 'through' function which allows you to record a TV programme from the built-in TV tuner in this recorder while watching a video playing on your VCR (To use this feature when the recorder is in standby, Power **Save** must be set to **Off** — see *Power* Save on page 106).

Using other types of audio/video output

If you can't use the SCART AV connector to connect your TV to this recorder, there are standard audio/video output jacks, as well as an S-video and component video output.

Using the supplied audio/video cable



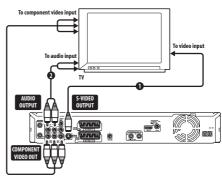
1 Connect the VIDEO OUTPUT jack to a video input on your TV.

Use the yellow jack of the supplied audio/video cable for the video connection.

2 Connect the AUDIO OUTPUT jacks to the corresponding audio inputs on your TV.

Use the red and white jacks of the supplied audio/video cable for the audio connection. Make sure you match up the left and right outputs with their corresponding inputs for correct stereo sound.

Using the S-video or component video output



1 Connect the S-video or component video output to a similar input on your TV.

For an S-video connection, use an S-video cable (not supplied) to connect the **S-VIDEO OUTPUT** jack to an S-video input on your TV.

For a component video connection, use a component video cable (not supplied) to connect the **COMPONENT VIDEO OUT** jacks to a component video input on your TV.

See also Component Video Out on page 110 for how to set up the component video output for use with a progressive scancompatible TV.

2 Connect the AUDIO OUTPUT jacks to the corresponding audio inputs on your TV.

You can use the supplied audio/video cable, leaving the yellow video plug disconnected. Make sure you match up the left and right outputs with their corresponding inputs for correct stereo sound.

Connecting to a cable box or satellite receiver

If you have a cable box or satellite receiver with a built-in decoder, connect it to this recorder and your TV as shown on this page.

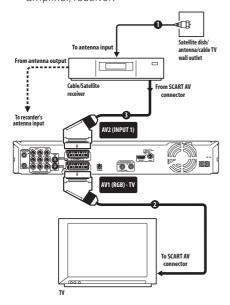
If you are using a separate decoder box for your cable/satellite TV, set up following the instructions on the next page. Using the setup on this page you can:

 Record any channel by selecting it on the cable box, satellite receiver or digital terrestrial receiver.



Important

 Do not connect this recorder to your TV 'through' your VCR, satellite receiver or other component. Always connect each component directly to your TV or AV amplifier/receiver.



Connect RF antenna cables as shown.

See Connecting a TV antenna on page 15 for more on RF antenna connections, including from this recorder to your TV.

2 Use a SCART cable (not supplied) to connect the AV1 (RGB)-TV AV connector to a SCART AV connector on your TV.

This enables you to watch discs.

3 Use another SCART cable to connect the AV2 (INPUT 1) AV connector to a SCART AV connector on your cable box/ satellite receiver.

This enables you to record scrambled TV channels.



F Tip

 This recorder has a 'through' function which allows you to record a TV programme from the built-in TV tuner in this recorder while watching a video playing on your VCR (To use this feature when the recorder is in standby, **Power Save** must be set to **Off** — see *Power Save* on page 106).

Connecting to an AV amplifier/receiver

To enjoy multichannel surround sound you need to connect this recorder to an AV amplifier/receiver using the digital coaxial output.

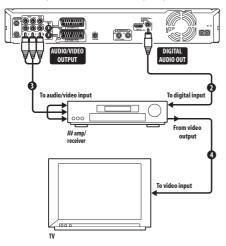
In addition to a digital connection, we recommend also connecting using the stereo analog connection for compatibility with all discs and sources.

You'll probably also want to connect a video output to your AV amplifier/receiver. Use the ordinary video output (as shown here), or the S-video output.



Important

- Noise may be output from your speakers if the recorder is not set up to work with your AV amplifier/receiver properly (see Audio Out on page 111).
- When watching D.TV only linear PCM audio is output from the coaxial digital out jack.
- Do not connect this recorder to your TV 'through' your VCR using AV cables.
 Always connect it directly to your TV.



1 Connect your TV antenna to the recorder and TV.

See Connecting a TV antenna on page 15 for details.

This enables you to watch and record TV channels.

2 Connect the DIGITAL AUDIO OUT (COAXIAL) jack on this recorder to a coaxial digital input on your AV amplifier/receiver.

This enables you to listen to multichannel surround sound.

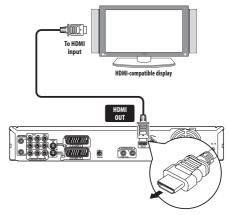
- 3 Connect the analog AUDIO OUTPUT and VIDEO OUTPUT jacks on this recorder to an analog audio and video input on your AV amplifier/receiver.
- 4 Connect the AV amplifier/receiver's video output to a video input on your TV.

Connecting using HDMI

If you have an HDMI or DVI-equipped¹ monitor or display², you can connect it to this recorder using an HDMI cable (not supplied).

The HDMI connector outputs uncompressed digital video, as well as almost every kind of digital audio.

1 Use an HDMI cable to connect the HDMI OUT connector on this recorder to an HDMI connector on an HDMI-compatible display.



 The arrow on the cable connector body should be face down for correct alignment with the connector on the recorder.

When connected to an HDMI component or HDCP-compatible DVI component, the HDMI indicator lights.

Note

- 1 Depending on the component you have connected, using a DVI connection may result in unreliable signal transfers.
- 2 The pixel resolution of this recorder's HDMI video output is (according to TV format): NTSC ($720 \times 480i/p$, $1280 \times 720p$, $1920 \times 1080i/p$) and PAL ($720 \times 576i/p$, $1280 \times 720p$, $1920 \times 1080i/p$). If your display is not compatible with these resolutions the picture may not be correctly reproduced.

HDMI setup is generally automatic. There are however settings you can change if you need to. See HDMI Output (only available when an HDMI device is connected) on page 116 for more information. Note that the HDMI settings remain in effect until you change them, or connect a new HDMI component.

Important

- An HDMI connection can only be made with DVI-equipped components compatible with both DVI and Highbandwidth Digital Content Protection (HDCP). If you choose to connect to a DVI connector, you will need a DVI to HDMI adaptor cable. A DVI to HDCP connection, however, does not support audio. Consult vour local audio dealer for more information.
- The HDMI connection is compatible with 32 kHz, 44.1 kHz, 48 kHz, 96 kHz, 16 bit/ 20 bit/24 bit 2-channel linear PCM signals, as well as Dolby Digital, DTS and MPEG audio bitstream.
- If your connected component is only compatible with Linear PCM, the signal is output as Linear PCM (DTS audio is not output).
- If you have connected to a Pioneer plasma display, please select the HDMI setup on the display (refer to the supplied manual for more on this).

About HDMI

HDMI (High-Definition Multimedia Interface) supports both video and audio on a single digital connection for use with DVD players and recorders, DTV, set-top boxes. and other AV devices. HDMI was developed to provide the technologies of Highbandwidth Digital Content Protection (HDCP) as well as Digital Visual Interface (DVI) in one specification. HDCP is used to protect digital content transmitted and received by DVI-compliant displays.

HDMI has the capability to support standard, enhanced, or high-definition video plus standard to multi-channel surroundsound audio. HDMI features include uncompressed digital video, a bandwidth of up to five gigabits per second (Dual Link), one connector (instead of several cables and connectors), and communication between the AV source and AV devices such as DTVs.

HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI licensing LLC.

HDMI Control

By connecting this unit to an HDMI Control-compatible Pioneer plasma television or AV system (amplifier or AV receiver etc.) with an HDMI cable, you can control this unit from the remote control of a connected plasma television, as well as have the connected plasma television automatically change inputs in response to this unit starting playback. (See HDMI Control on page 117.)

Refer to the operating instructions for your plasma television or AV system for more information about which operations can be carried out by connecting via HDMI cable.

Auto-select function

You can have a connected plasma television or AV system automatically change inputs when playback begins on this unit (including when you have a GUI (such as Disc Navigator) set to display on this unit). Certain connected plasma televisions may have their power turned from off to on when using this function.

Simultaneous power function

You can have this unit turn on automatically when the power for a connected plasma television is turned on. To have this unit's power turned off when a connected plasma television is turned off, you must change the simultaneous power function of your plasma television.

Unified language function

By receiving language information from a connected plasma television, you can have this unit's language settings automatically change to those of the plasma television (language information can be received only when no media is being played back and no recordings are taking place, or when you choose not to display this unit's GUI displays).



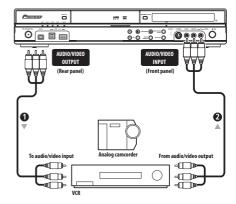
Important

- Depending on the type of plasma television, some HDMI input terminals do not support the HDMI Control function. For details, see the operating instructions supplied with your plasma television.
- To use the following functions, set this unit's **HDMI Control** to **Off** (page 117).
 - When you want this unit to automatically switch off upon completion of time recording. (When HDMI Control is set to On, this unit does not automatically switch off if your plasma television is switched on upon completion of time recording.)
 - When using the Video Control function of an external component.
 - Child lock settings (page 48).
 - When you connect a SCART cable and an HDMI cable to the same plasma television simultaneously.
- HDMI Control may not operate properly if you do not use an HDMI cable that supports the HDMI 1.3 Specification.
- Controls may not function properly in certain situations, such as immediately after you have connect an HDMI cable, turn this unit's power off or remove the power cable for this unit or the connected component. If you experience any problems, set HDMI Control to On for all connected units, and then display the pictures stored on this unit on your plasma television to improve the situations.

 We cannot guarantee this unit will work with HDMI control-compatible components other than those made by Pioneer.

Connecting other AV sources

Connecting a VCR or analog camcorder



1 Connect a set of audio and video inputs of your VCR or camcorder to a set of outputs on this recorder.

This enables you to record from this recorder to your VCR or camcorder.

- You can use standard video or S-video cables for the video connection.
- Alternatively, you can use the AV2
 (INPUT 1) SCART connector for audio/
 video input and output with just one
 SCART cable.

2 Connect a set of audio and video outputs of your VCR or camcorder to a set of inputs on this recorder.

This enables you to record tapes from your VCR or camcorder.

- You can use standard video or S-video cables for the video connection.
- The front panel connections make convenient connections for a camcorder input.

 When connecting an external AV source that only supports monaural sound, only insert the left (white) audio jack to this device. Doing so will allow the same sound track to be recorded to both channels. You must connect to the INPUT 2 jack on the front panel.

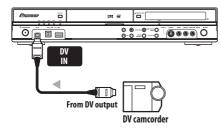
Connecting a DV camcorder

You can connect a DV camcorder or DVD recorder with DV output to the front panel **DV IN** jack.



Important

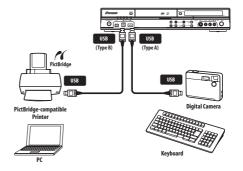
 This jack is for connection to DV equipment only. It is not compatible with digital satellite receivers or D-VHS video decks.



 Use a DV cable (not supplied) to connect the DV jack of your DV camcorder to the front panel DV IN jack of this recorder.

Connecting a USB device

Using the USB ports on the front of the recorder you can connect USB devices such as digital cameras, printers, keyboards and PCs. Please also see the instructions that came with the device you want to connect before using.





Important

- Some USB devices may not work with this recorder.
- When connecting a PC to this unit, make sure the power is turned off on both the PC and this unit when you connect them via USB.
- We recommend connecting USB devices when this recorder is switched off (in standby).

JPEG file storage devices

- Digital still camera
- Memory card reader (any type of memory card)
- USB memory

The Mass Storage Class (MSC) device should be FAT-compatible. Note that if the device is partitioned, this recorder may not recognize it.

The Picture Transfer Protocol (PTP) can be used to transfer up to a maximum of 4000 files.

WMA/MP3 file storage devices

- Memory card reader (any type of memory card)
- USB memory
- PC (Use Connect PC function)

The Mass Storage Class (MSC) device should be FAT-compatible. Note that if the device is partitioned, this recorder may not recognize it.

Note that although multi-slot card readers can be used, the recorder will only recognize the first card inserted. To read another card, remove all the cards and insert the card to be read again.

Using a USB hub

- Use a hub compatible with USB 1.1 and/ or 2.0.
- Use an independently powered hub (bus powered hubs may not work reliably).
- In the event of unreliable operation with the hub, we recommend plugging the device directly into the recorder's USB port.
- Operation may become unreliable if too many devices are connected to the hub. In this case, try unplugging some devices.
- If the power delivered through a hub is insufficient for the devices connected, communication can become unreliable. In this case, disconnect one or more devices then perform a USB restart. (See Restart USB Device on page 118.)

Using a USB printer

• Use a PictBridge-compatible printer.

Using a USB keyboard

 Do not use a PS/2 keyboard connected using a PS/2-USB adapter.

Using a PC

 Note that you can connect a PC to this device via USB to copy WMA and MP3 files. For more information, see Connect PC on page 88. To use Connect PC with this device, your PC must run either the Windows XP Home Edition (SP2) or Windows XP Professional (SP2) operating system and be able to run Windows Media Player 10. Even if your PC can run Windows Media Player 10, we cannot guarantee that it will function properly with this device. For more details see the 'Help' section of Windows Media Player 10.

Plugging in

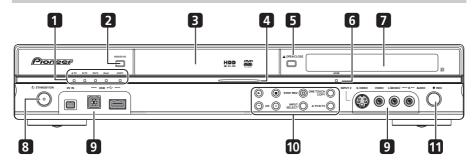
After checking all the connections, plug in the recorder.

 Use the supplied power cable to connect this recorder to a power outlet.

Chapter 3

Controls and displays

Front panel



1 A.TV indicator

Lights when analog TV is selected.

D.TV indicator

Lights when digital TV is selected.

PLTV indicator

Lights during recording started using the Pause Live TV feature.

DivX indicator

Lights during DivX playback.

COPY indicator

Lights when copying is underway.

2 HDD/DVD

Press to switch between HDD and DVD for recording and playback.

3 Disc tray

4 HDD/DVD indicator

Indicator lights blue when the hard disk (HDD) is selected; orange when the DVD drive is selected.

5 ▲ OPEN/CLOSE

Press to open/close the disc tray.

6 HDMI indicator

Lights when this recorder is connected to HDMI (HDCP) compatible component.

7 Front panel display and IR remote sensor

See *Display* on page 25 for details.

8 © STANDBY/ON

Press to switch the recorder on/into standby.

9 Front panel inputs

See *Front panel connections* on page 15 for more information on these.

10 ▶

Press to start or restart playback.

Press to stop playback.

☐ STOP REC

Press to stop recording.

ONE TOUCH COPY

Press to start One Touch Copy of the currently playing title to DVD or the HDD.

CH +/-

Use to change channels, skip chapters/tracks, etc.

INPUT SELECT

Press to change the input used for recording.

A.TV/D.TV

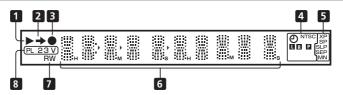
Switches between analog TV antenna input and digital TV antenna input. The **A.TV** and **D.TV** indicators show which is selected.

11 ● REC

Press to start recording. Press repeatedly to set the recording time in 30 minute blocks.

Controls and displays

Display



1 ▶

Lights during playback; blinks when playback is paused.

2 →

Lights when copying.

3

Lights during recording; blinks when recording is paused.

4 (page 44)

Lights when a timer recording has been set. (Indicator blinks if the timer has been set to DVD but there isn't a recordable disc loaded, or the timer has been set to record to the HDD but the HDD is not recordable.)

NTSC

Lights when the video output signal format is NTSC.

■ (page 111)

Indicates which channels of a bilingual broadcast are recorded.

P (page 110)

Lights when the component video output is set to progressive scan.

5 Recording quality indicators (page 40)

ΧP

Lights when the recording mode is set to **XP** (high quality).

SΡ

Lights when the recording mode is set to **SP** (standard play).

LP/SLP

Lights when the recording mode is set to **LP** (long play) or **SLP** (super-long play).

EP/SEP

Lights when the recording mode is set to **EP** (extended play) or **SEP** (superextended play).

MN

Lights when the recording mode is set to **MN** (manual recording level) mode.

6 Character display

7 R/RW

Lights when a recordable DVD-R or DVD-RW disc is loaded.

8 PL (page 68)

Lights when a VR mode disc is loaded and the recorder is in Play List mode.

2 3 (page 117)

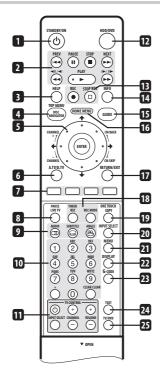
Shows the remote control mode (if nothing is displayed, the remote control mode is 1).

V

Lights when an unfinalized Video mode disc is loaded

Controls and displays

Remote control



1 & STANDBY/ON

Press to switch the recorder on/into standby.

2 ► PLAY (page 53) Press to start playback.

II PAUSE

Press to pause playback or recording.

■ **STOP** (page 53) Press to stop playback.

I◄◀ PREV ▶▶I NEXT

Press to skip to the previous or next title/chapter/track/folder; or to display the previous or next menu page.

◄► (page 58)

Press to start reverse or forward scanning. Press again to change the speed.

◄II/◄I I►/II► (page 58)

While paused, press and hold to start slow-motion playback. Press repeatedly

to change the playback speed.

While paused, press to advance a single frame in either direction.

3 HELP

Press for help on how to use the current GUI screen.

4 DISC NAVIGATOR (page 57, 68)**/ TOP MENU** (page 54)

Press to display the Disc Navigator screen, or the top menu if a DVD-Video or finalized DVD-R/-RW (Video) disc is loaded.

5 ↑/↓/←/→ and ENTER (Smart Jog)

Used to navigate all on-screen displays. Rotate the **Smart Jog** to move the cursor up or down. Press **ENTER** to select the currently highlighted option.

When using the **Smart Jog**, turn it lighty to avoid pressing down on the cursor keys.

While watching D.TV press **ENTER** to display the Channel List screen.

Rotate the **Smart Jog** when playback is paused to do a frame-by-frame search back/forward.

CM BACK (commercial back)

Turn the **Smart Jog** counter-clockwise during playback to skip progressively backward through the video playing.

CM SKIP (commercial skip)

Turn the **Smart Jog** clockwise during playback to skip progressively forward through the video playing.

CHANNEL +/- (page 38)

While stopped, turn the **Smart Jog** to change the channel of the built-in TV tuner.

6 A.TV/D.TV

Press to switch between analog TV antenna input and digital TV antenna input. The **A.TV** and **D.TV** indicators on the front panel show which is selected.

7 Colour buttons (RED, GREEN, YELLOW, BLUE)

Use when an EPG screen is displayed or when tuned to a data channel of a digital broadcast. The function of each button will

Controls and displays

be described on-screen, and changes depending on the screen being displayed.

8 PAUSE LIVE TV (page 42)

Press to start recording the current TV channel, but with playback paused, effectively pausing the broadcast.

9 MUDIO (page 39, 40, 61, 62)
Press to change the audio language or channel. (When the recorder is stopped, press to change the tuner audio.)

SUBTITLE (page 61)

Press to display/change the subtitles included in multilingual DVD-Video discs.

While watching D.TV, press to change the D.TV subtitles.

ANGLE (page 62)

Press to switch camera angles on discs with multi-angle scenes.

10 Number buttons, CLEAR, +

Use the number buttons for track/chapter/title selection; channel selection, and so on. The same buttons can also be used to enter names for titles, discs and so on.

Use **CLEAR** to clear an entry and start again.

11 TV CONTROL buttons (page 121)

After setting up, use these controls to control your TV.

12 HDD/DVD (page 41)

Press to select the hard disk (HDD) or DVD for recording and playback.

13 Recording controls (page 41)

REC

Press to start recording. Press repeatedly to set the recording time in blocks of 30 mins.

☐ STOP REC

Press to stop recording.

14 INFO

While watching D.TV, press to display the information banner.

Press to see additional information for the highlighted item in the EPG.

15 GUIDE

While watching D.TV, press to display the EPG screen; press again to exit.

16 HOME MENU

Press to display the Home Menu, from which you can navigate all the functions of the recorder.

17 RETURN/EXIT

Press to go back one level in the on-screen menu or display.

18 TIMER REC (page 46)

Press to set a timer recording.

REC MODE (page 40)

Press repeatedly to change the recording mode (picture quality).

19 ONE TOUCH COPY (page 79)

Press to start One Touch Copy of the currently playing title to DVD or the HDD.

20 INPUT SELECT (page 49)

Press to change the input to use for recording.

21 MENU (page 54)

Press to display the disc menu if a DVD-Video, finalized DVD-R/-RW (Video mode) or finalized DVD+R/+RW disc is loaded.

22 DISPLAY (page 63)

Displays/changes the on-screen information displays.

23 G-Code® (page 45)

Press then use the number buttons to enter a G-Code programming number for timer recording.

G-Code is a registered trademark of Gemstar Development Corporation.

The G-Code system is manufactured under license from Gemstar Development Corporation.

24 TEXT (page 39)

Press to display Teletext information if available during digital broadcasts.

25 TV/DVD

Press to switch between 'TV mode', in which you get the picture and sound from the TV's tuner, and 'DVD mode', in which you get picture and sound from the recorder's tuner (or an external input).

Chapter 4 Getting started

Switching on and setting up

When you switch the recorder on for the first time, you can make several basic settings using the Setup Navigator feature. This takes you through setting the clock, the internal TV tuner and the video output.

If you're using the recorder for the first time, we strongly recommend you use the Setup Navigator before starting to use the recorder.

1 Switch on your TV and set the video input to this recorder.

2 Switch on the recorder.

When you switch on for the first time, your TV should display the Setup Navigator screen (If the Setup Navigator doesn't appear, you can also access it from the Initial Setup menu; see page 106).

 If this recorder is connected to a compatible TV using a fully-wired 21-pin SCART cable, the recorder will take a few seconds to download country, TV screen size and language information. (Check the manual that came with your TV for compatibility information.)

3 Choose a language (then press ENTER).



4 ENTER Start the Setup Navigator.



 If you don't want to use the Setup Navigator, press
 to select Cancel, then press ENTER to exit the Setup Navigator.



is on or in standby.

Select an Aerial Power

- setting¹ for the built-in digital tuner.
 On: power is always supplied to the connected aerial, whether the recorder
 - Auto: power is only supplied when this recorder is on.
 - Off: power is never supplied to the aerial.



6 Select 'Auto Scan' to start scanning for D.TV channels.

 Select **Do not set** if you want to skip D.TV channel setup (because they have already been set up, for example), then skip to step **8** below.



Select your area.

The recorder starts scanning for new channels. After the scan is complete the recorder will let you know how many new channels were found.

• The clock will also be set automatically here if D.TV channels are found.

Getting started

 If no new channels were found a message appears asking if you want to scan again. Check the aerial connection before selecting Yes. (If you select No, skip to step 8 below.)



8 Select the analog TV (A.TV) Auto Channel Setting ('Auto Scan' or 'Download from TV'), or 'Do not set'.



- Select **Do not set** if you want to skip channel setup (because they have already been set up, for example).
- You can only use the Download from TV feature if this recorder is connected to your TV using a fully-wired 21-pin SCART cable via the AV1 (RGB)-TV connector, and if your TV supports this function (check your TV's instruction manual for more details).



Select your country.



Auto-tuning channels

The **Auto Scan** option automatically scans and sets the channel presets.



• **Downloading channels from your TV**Use the **Download from TV** option to download all the channels that your TV is tuned to.



9 Select 'Auto' for automatic time setting, or 'Manual' to set the clock manually.

If the clock was already set from a D.TV channel in step **6**, this step is skipped.



Auto clock setting

Some TV channels broadcast time signals together with the programme. This recorder can use these signals to set the clock automatically.

Set 'Clock Set CH' to the channel preset number that broadcasts a time signal, then move the cursor down to 'Start' and press ENTER.



The recorder takes a short while to set the time. After you see that it's set, select **Next** to proceed.



If the time could not be set automatically, press **RETURN/EXIT** to go back to the previous screen and select **Manual**.

Manual clock setting

If no stations in your area are broadcasting time signals, you can set the clock manually.

Getting started

Use the ←/→ buttons to set your time zone.

You can set this by selecting a city or a time relative to GMT.



Press ↓ then use the ←/→ buttons to select 'On' or 'Off' for summer time, then press ENTER.

Select **On** if you are currently using summer time.



Set the date (day/month/year) and time, then press ENTER to make all the settings.



- Use the ↑/↓ buttons to change the value in the highlighted field.
- Use the ←/→ buttons to move from one field to another.
- You can go back to the previous screen in the Setup Navigator by pressing RETURN/EXIT.

Select the TV screen type, 'Wide (16:9)' or 'Standard (4:3)'.



11 Select whether or not your TV is compatible with progressive scan video.



• This screen is not displayed when an HDMI signal is being output.

12 Press to continue after reading the HDD caution.



13 Select 'Finish Setup' to exit the Setup Navigator, or 'Go Back' if you want to start again.



That completes basic setup using the Setup Navigator.

• If there are blank channels with no station, you can set these to skip using the manual channel setting. See *Manual CH Setting* on page 109.

For users receiving digital broadcast services

This unit can set its internal clock automatically from digital broadcasts. However, depending on the broadcaster, the clock information received may not be accurate.

Use the following procedure (while the recorder is not recording) to set the clock manually.

(HOME MENU) Press HOME MENU.



Select 'Initial Setup' > 'Basic' > 'Clock Setting'.

- Highlight the time setting.
- Press to display the manual clock setting screen.
- Set the correct time.

Return to automatic clock setting

• To return to the automatic clock setting, follow the instructions for 'Replace Channels' (page 107).

Chapter 5

Using the digital electronic programme guide

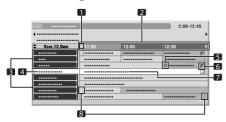
The Digital EPG system

The Digital EPG shows a table of scheduled digital TV programmes and detailed information about individual programmes. It also allows you easily to select and tune to a particular programme.¹

The Digital EPG screen consists of programme Information, Channel List and General Programme List. This section describes information displayed in the schedule and information windows.

Note that the recorder's clock must be set to the correct time and date to ensure all relevant EPG information is displayed.

General Programme List



- **1** Appears when the schedule table can be scrolled forward or backward
- 2 Time schedule
- 3 Channel list
- **4** Highlights the currently selected channel
- **5** Indicates the programme set for recording
- **6** Appears when other programmes (often short ones) have been scheduled for the same period

- 7 Programme title
- 8 Time dividers
 - The general programme list may show sections whose bottom right corners have been folded. This indicates that other programmes have been scheduled for that period. To view the title of such a programme and related information, highlight a folded section, and then press ←/→.

Programme information



- Channel number
- 2 Station name
- 3 Programme title
- **4** Appear when other programmes have been scheduled for the same period
- 5 Programme schedule
- 6 Programme genre

Using the Digital EPG

Using the Digital EPG you can check the schedule of digital TV programmes, view information about desired programmes, and/or select programmes.

1 Press to display the Digital EPG screen.

The EPG screen updates automatically if the EPG data is acquired successfully. If not, the Digital EPG screen shows a blank image.

Select a TV programme.



- Press I◄◄ PREV/►►I NEXT to skip to the next or previous channel list page.
- Information about the selected programme appears in the information window.¹
- To watch a programme currently on air, select the programme (then press ENTER).
- You can check information about programmes scheduled up to one week ahead, depending on conditions.
- Depending on conditions, it may take some time to acquire EPG data.

3 Press to view more information about the selected programme.

Detailed information appears in the schedule window.

If the screen contains further information, **More** ... is displayed.

 To quit the display of detailed information, press INFO again (or RETURN/EXIT).



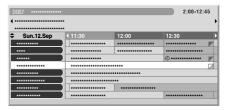
Setting timer programmes

Using the Digital EPG, it's easy to set digital TV programmes for recording².

1 Press to display the Digital EPG screen.



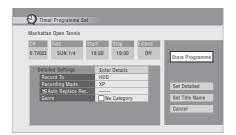
Select a programme.



- Select a programme currently on-air: press ENTER to close the Digital EPG screen and watch the channel immediately, or press RED to set the programme for recording immediately.
- Select a programme not yet started then press ENTER or RED to set the programme for recording.

3 Enter the timer recording settings.

Use the \leftarrow/\rightarrow buttons to select a field; use the \uparrow/\downarrow buttons to change the value.



- CH Choose a channel (Pr 1 to Pr 99 for analog channels and available digital channels (excluding skip channels)), or one of the external inputs from which to record.
- Date Choose a date up to one month in advance, or select a daily or weekly programme.
- **Start** Set the recording start time.
- Stop Set the recording end time (maximum length of a timer recording is 24 hours).
- Extend Extend the end time of the timer recording (select Off, 30, 60, 90 or 120 mins.)
- 4 If you want to change the recording mode, recording destination, etc., select 'Set Detailed'.

In this area you can set:

Record to – Select **HDD** for hard disk recording or **DVD** for DVD recording¹.

Recording Mode – Select from AUTO², XP, SP, LP, EP, SLP, SEP (See Setting the picture quality/recording time on page 40). If Manual Recording is on, then you can also select the LPCM setting, XP+ or MN (press ENTER then use the ←/→ buttons to select the level).

Auto Replace Rec. – Automatically erases the previous daily or weekly recording when the next one is recorded.

Genre – Select a record genre (for HDD recording only).

5 After entering all the timer recording information, highlight 'Store Programme' and press ENTER.

A red clock icon appears for the programme.

6 Press to exit the Digital EPG screen.



 To enter a title name for the timer recording in advance, select Set Title Name and follow the on-screen display.

Note

- 1 For a DVD timer recording, if **Optimized Rec** (see *Optimized Rec* on page 114) is set to **On**, the recorder will adjust the recording quality to try and fit the recording on the disc. If the recording will not fit onto the disc even on **MN1** recording quality (**MN4** for DVD+R/+RW) then the Recovery Recording feature will automatically make the recording to the HDD instead.
 - If there is very little free space left on the HDD, an Auto Replace Recording may not complete successfully.
 - If the HDD is being used for playback or high-speed copying when an Auto Replace Recording is due to start, the new timer recording will not replace the old one. However, the next time the timer recording starts, both of the older two programmes will be erased.
- 2 This mode maximizes the recording quality to fit on to a single DVD disc. Can also be used when recording to HDD

Other useful EPG functions

EPG Jump

- 1 Press GREEN when the Digital EPG screen (Programme List, Detailed information or Search Result) is displayed.
- 2 In the 'Date' field select a date (within one week) to jump to.



In the 'Time' field select a time of the day (0:00 to 23:00) to jump to.



Select 'Jump'.

The Programme List for the specified day and time is displayed.

EPG Search

- 1 Press YELLOW when the EPG screen (Programme List, Detailed information or Search Result) is displayed.
- 2 In the 'Date' field select a date (within one week) to search in.



- In the 'Time' field select the time of day (0:00 to 23:00) to search in.
- 4 In the 'Genre' field, select the genre to search for.

You can search for multiple genres by pressing **ENTER** after each genre.



Select 'OK'.



Select 'Search'.

The results of your search are displayed.

Chapter 6 Recording

About DVD recording

This recorder can record to DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM, DVD-R DL and DVD+R DL media.

DVD-R and DVD-RW discs can be initialized for *Video mode* or *VR mode* recording. Each has its advantages, and it depends on what you want to do with the recording which mode you choose.

If you want to edit your recordings in any significant way, VR mode offers greater possibilities for cutting, copying, and changing the way the video is presented.

Video mode is less flexible when it comes to editing, but it has the advantage that it is compatible with standard DVD players (many of which won't play VR mode discs¹).

Once a disc is initialized for a particular mode, all recording on that disc will be in that mode.

DVD+RW discs can be initialized for +VR mode recording.

DVD-RAM discs can be initialized for VR mode recording.

DVD+R discs do not require initializing.



Important

 The table below shows the maximum number of titles recordable per disc and the maximum number of chapters per title:

Disc type/rec. format	Max. titles (per disc)	Max. chapters (per title)
DVD-R/-RW Video mode	99	99
DVD-R/-RW/-RAM VR mode	99	999 ^{*1}
DVD+R/+RW	49	99 ^{*2}

^{*1} A maximum of 999 chapters are recordable per disc.

- This recorder cannot play or record unfinalized DVD-R/-RW (Video mode) and DVD+R discs recorded on another recorder. DVD+RW discs recorded on another recorder are playable on this recorder but are not recordable.
- The maximum continuous recording time for one title is eight hours when using a DVD+R/+RW disc.
- If you delete a title from a DVD+R/+RW disc, the total number of recordable titles remaining may not increase.
- Although this recorder can record PAL, SECAM, NTSC and PAL-60, you can't mix multiple TV line systems on one disc. A disc can contain PAL and SECAM recordings, or NTSC and PAL-60. See also Additional information about the TV system settings on page 119.
- Fingerprints, dirt and small scratches on a disc can affect playback and/or recording performance. Please take proper care of your discs.
- Pioneer takes no responsibility for recording failure due to power cuts, defective discs, or damage to the recorder.



^{*2} A maximum of 254 chapters are recordable per disc.

 See also Disc/content format playback compatibility on page 7 for detailed disc compatibility information.

Recording to DVD-R DL/DVD+R DL discs

Recording to DVD-R DL/DVD+R DL discs is generally the same as recording to regular single-layer discs; however, please note the following points:

- When the recorder switches from the first layer to the second during recording a DVD-R DL (Video mode) disc, a new title is automatically started on the new layer.
- Up to 99 titles can be recorded on a DVD-R DL (Video mode) disc. If the 99th title is being recorded when the layer is switched, recording will stop.
- Up to 49 titles can be recorded on a DVD+R DL disc.
- You cannot play, record additional material to, edit or finalize a DVD-R DL or DVD+R DL disc that has been recorded on but not yet finalized on another DVD recorder.

About HDD recording

Recording to the hard disk drive (HDD) is very flexible; you have the full choice of recording quality options, including manual mode, and of course you can record, erase and re-record as many times as you like.

The capacity of the hard disk drive means that you can store many hours of video on it, even using the higher quality recording modes.

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Important

- The maximum number of titles/chapters per title that can be recorded on the HDD is 999 and 99 respectively. No more recording is possible on the HDD after the maximum number of titles has been reached.
- The maximum continuous recording time for one title is 12 hours.

 It is possible to record both PAL and NTSC titles on the HDD. Before recording, you need to make sure that the Input Line System setting (page 119) matches the TV line system of the source you're recording.

HDD Video mode compatibility

When recording to the HDD you can choose to record in one of two formats. Set the format from the HDD Recording Format item in the Initial Setup menu (see page 115).

When set to Video Mode On, high-speed copying from HDD to DVD-R/-RW (Video mode) or DVD+R/+RW is possible. When recording a bilingual broadcast, set which channel you want to record from the Initial Setup menu (see *Bilingual Recording* on page 111).

When HDD Recording Format is set to Video Mode Off, high-speed copying from HDD to DVD-R/-RW (Video mode) or DVD+R/+RW isn't possible. However, both channels of bilingual broadcasts are recorded and you can switch the audio on playback.

Recorded audio

In all except the **LPCM** mode, sound is recorded in two channel Dolby Digital format (only Dolby Digital 2.0 can be recorded; Dolby Digital 5.1 recording is not possible). When set to **LPCM**, sound is recorded in high quality, uncompressed Linear PCM format. If the broadcast audio is bilingual and you are recording to DVD-R/-RW (Video mode). DVD+R/+RW, or to the HDD with the HDD Recording Format set to Video Mode On, or on the **LPCM** setting, use the Bilingual Recording setting (page 111) to select the A/L or B/R audio channel to record before recording starts. In other cases, both channels of a bilingual broadcast will be recorded and you can switch on playback.

Restrictions on video recording

You cannot record copy-protected video using this recorder. Copy-protected video includes DVD-Video discs and some satellite broadcasts. If copy-protected material is encountered during a recording, recording will pause automatically and an error message will be displayed on-screen.

Video that is 'copy-once only' can only be recorded to DVD-RAM or HDD, CPRM-compatible VR mode DVD-R/-RW (see below).

When recording a TV broadcast or through an external input, you can display copy control information on screen (see *Displaying disc information on-screen* on page 63).

CPRM

CPRM is a copy protection/scrambling system developed for the recording of 'copy once' broadcast programmes. CPRM stands for *Content Protection for Recordable Media*.

This recorder is CPRM compatible, which means that you can record copy-once broadcast programmes, but you cannot then make a copy of those recordings. CPRM recordings can only be made on CPRM-compatible DVD-R (ver. 2.0/8x or higher) or DVD-RW (ver. 1.1 or higher) discs formatted in VR mode, DVD-RAM discs or on the HDD.

DVD CPRM recordings can only be played on players that are specifically compatible with CPRM.

Recording equipment and copyright

Recording equipment should be used only for lawful copying. You are advised to check carefully what constitutes lawful copying in the country in which you are making a copy. Copying of copyrighted material such as films or music is unlawful unless permitted

by a legal exception or consented to by the rightowners.

This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Using the built-in A.TV and D.TV tuners

Switching between A.TV and D.TV tuners

• Press to switch between D.TV (digital) and A.TV (analog).

Changing channels

There are a number of ways to select analog and digital TV channels. 1 Note that you can't change the TV channel during playback, recording or during recording standby.



Smart Jog



Number buttons

For example, to select channel 4 (digital channel D004), press **4** then **ENTER**; for channel 34 (digital channel D034), press

3, **4**, **ENTER**.²

- CH +/- buttons on the front panel.
- For D.TV channels only, you can also use the Channel List — see *Using the D.TV* Channel List on page 39.

- 1 If you select a locked channel, you will need to enter your password to access it.
 - While listening to D.TV radio channels, the screen saver automatically starts after no button has been pressed for three minutes.
- 2 Analog channel presets are numbered 1 to 99; digital channel presets are numbered D001 to D999.



- When changing terrestrial digital broadcast channels, channels with a low signal strength may result in a black screen being displayed.
- For other channels, it may take a short while for the channel picture to appear, and/or for the channel number to appear.
- In both of the above cases, some improvement may be possible by adjusting the antenna.

Using the D.TV Channel List

When in D.TV mode, you can call up the onscreen Channel List anytime by pressing **ENTER**. Use the ↑/♣ buttons to select a channel, then press **ENTER** to switch to that channel.¹



Displaying a channel banner

A channel banner shows programme titles, start and end times of the current programme and other channel information. The information is updated every minute.

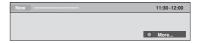
• Press to display the channel banner for the current channel.



- Use the ←/→ buttons to display the channel banner for other channels. To switch to the displayed banner's channel, press ENTER.
- The channel banner displays the Subtitles (□) and Teletext (□) icon if

they apply to the selected channel. The Parental Rating icon appears when a parental guidance code is present.²

 To see more detailed channel information, press INFO again.³



Use the ↑/↓ buttons to display information about previous and following programmes. Use the ←/→ buttons to see information about other channels.

- If there is still more information to be displayed, More ... is displayed; press the BLUE button to see the extra information.
- To hide the channel banner, press **RETURN/EXIT**.

Changing D.TV audio languages

Changing D.TV subtitle languages

• © Press to display the current subtitle language. Press repeatedly to change it to other available languages.

Viewing Teletext

You can view the Teletext that comes simultaneously with certain programmes.

- Press to display the Teletext.
- You can also use any of the colour buttons.
- Press the **TEXT** button again to hide the Teletext screen.

- 1 If you select a locked channel, you will need to enter your password to access it.
 - While listening to D.TV radio channels, the screen saver automatically starts after no button has been pressed for three minutes.
- 2 Due to inaccurate information provided by the broadcaster, some icons may occasionally be present or absent in error.
- 3 Not all channels supply more detailed information.

Changing A.TV audio channels

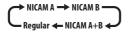
You can change the audio channel of the broadcast or external input signal.

The current audio channel is displayed onscreen.

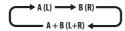
 If the NICAM audio setting (see NICAM Select on page 110) is set to NICAM and you are watching a NICAM broadcast, you can switch between NICAM and Regular (non-NICAM) audio.



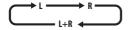
• If the NICAM broadcast is bilingual, you can also select the language.



 You can also select the language for a non-NICAM bilingual broadcast.



 When watching a recording made from an external input with Bilingual recording selected (see External Audio on page 111), you can switch the audio channel between left (L), right (R) or both (L+R).





When recording to the HDD with HDD Recording Format set to Video Mode On, to DVD-R/-RW (Video mode), to DVD+R/+RW, or on the **LPCM** setting, only one channel of a bilingual broadcast is recorded. In this case, decide which language you want to record before recording by setting the Bilingual Recording setting (see *Bilingual Recording* on page 111).

Switching between TV and DVD

When the recorder is stopped or recording you can choose whether to have the audio/video from the built-in TV tuner (or external input) play on your TV ('DVD mode'), or watch the channel that the TV is currently set to ('TV mode').

During playback or when a menu is being displayed on-screen, the sound and video is always routed to your TV and is unaffected by the **TV/DVD** mode setting.

Note that the recorder must be connected to your TV using a SCART cable to be able to use this feature.

• Switch between TV mode and DVD mode.

Setting the picture quality/ recording time

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM (HDD)

Before starting a recording, you will usually want to set the picture quality/recording time. There are six standard settings available, which allow you to choose a balance between picture quality and recording time.

When Manual Recording is set to On (see *Manual Recording* on page 113), a further option will be available (**MN1** to **MN32**, **LPCM**, or **XP+** (a super-high quality HDD recording mode that features a transfer rate of around 15 Mbps) depending on what you set)

When recording to DVD, **MN32** is the highest recording quality available. If you select **XP+**, the recording mode will automatically revert to **MN32**.

When recording to DVD+R/+RW, **SLP** is the longest recording time available. If you select **SEP** or **MN1** to **MN3**, the recording mode will automatically revert to **SLP**.

Press repeatedly to select the recording quality.

 XP – High quality setting, gives about one hour of recording time on a DVD disc.

- **SP** (Standard Play) Default quality, used for most applications, gives about two hours of recording time on a DVD.
- LP (Long Play) Lower video quality than SP, but doubles the recording time on a DVD to about four hours.
- **EP** (Extended Play) Lower quality than LP, but gives about six hours of recording time on a DVD disc.
- SLP (Super Long Play) Lower quality than EP, but gives about eight hours of recording time on a DVD disc.
- SEP (Super Extended Play) Lowest video quality but gives about ten hours of recording time on a DVD disc.
- MN1 to MN32/LPCM¹/XP+² Manual/ Linear PCM/XP+ (available only when manual recording is on).

The setting is indicated in the front panel display, and shown on-screen together with the recording time for a blank recordable disc. If a recordable disc is loaded, the approximate remaining recording time for that disc is also shown. (Note that if the On Screen Display setting (see *On Screen Display* on page 117) is **Off** then this information is not displayed.)

Basic recording from the TV

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM HDD

Basic recording from the TV involves just setting the channel to record, choosing whether to record to the HDD or a DVD and selecting the recording quality.

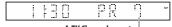
1 Select the HDD or DVD for recording.

- If you're recording to DVD, load a recordable disc (if you load a new blank DVD-RW or DVD+RW disc, the recorder takes a short while to initialize the disc).
- If you want to record a VR mode DVD-R
 or a Video mode DVD-RW, you must
 initialize it before proceeding (see
 Initializing recordable DVD discs on
 page 51).

2 Press to switch between D.TV (digital) and A.TV (analog).

Select a TV channel to record.

The front panel display shows the channel number, or channel name if it's available:



A.TV Channel preset –

- While the recorder is stopped, you can also use the number buttons on the remote to select the channel (For channel 24, press 2, 4 then ENTER).
- If the recorder is stopped, you can also use the CH +/- buttons on the front panel to select the channel number.

4 Set the picture quality/recording time.

- See Setting the picture quality/recording time on page 40 for detailed instructions.
- 5 If you're recording from the A.TV tuner, select the audio channel to record.
 See Changing A.TV audio channels on

See Changing A.TV audio channels on page 40 for more on this.

 When recording in VR mode, if a broadcast is bilingual, both audio channels are recorded, allowing you to switch the audio channel on playback.

- 1 Audio is recorded in 16-bit Linear PCM format, video is recorded at **XP** quality. When recording a bilingual broadcast, select which audio channel to record (see *Bilingual Recording* on page 111).
- 2 Applicable only to HDD recording. (If this setting is used when recording to DVD, **MN32** is used.) When copied to DVD, **XP+** recordings are always copied in real time.

The only exception to this is when the picture quality is set to **LPCM**, in which case you do need to select the audio channel before recording.

If you're recording from the D.TV tuner, select the audio language to record.

- You may also be able to set which subtitle language to record; use **SUBTITLE** to select.
- Note that audio and subtitle languages cannot be changed during the recording of a digital broadcast.

REC

Start recording.

If you want to set a recording end time, press the

REC button repeatedly. The recording time increases in 30 minute increments, up to a maximum of six hours. The time the recording will end is shown on-screen and in the front panel display. When the recording ends, the recorder automatically switches into standby if no other operation is being performed.

- To cancel the set recording time, press ● REC.
- If you want to pause recording at any time¹, press **II PAUSE**. Press again to restart the recording (If recording to the HDD, DVD-RAM or in VR mode, a new chapter is started after recording restarts).



Press to stop recording.

• If you set the recording time in the previous step, you can still stop the recording anytime by pressing

☐ STOP REC.

 Recording will stop automatically when there is no more space on the HDD/DVD, or after 12 hours of HDD recording (whichever is sooner).



• During recording you can turn on/off the SCART loop through function. During recording, press the front panel CH + button to switch to **SCART THRU** (loop through on), or CH - to switch to SCART **NORM** (loop through off). Loop through is automatically reset to off after recording has finished. Note that you can't switch loop through on if recording from the AV1(RGB)-TV connector.

Pause Live TV



The Pause Live TV feature lets you effectively pause a TV programme you're watching. When you're ready to resume watching, just press the ► PLAY button.

Setting up for Pause Live TV

You can use the Pause Live TV feature with an AV Link-compatible TV connected using a SCART cable (see TV tuner setup for Pause Live TV below), or using this recorder's internal tuner (see Using the recorder's internal tuner for Pause Live TV on page 43).

TV tuner setup for Pause Live TV

To use this feature with an external TV tuner. the recorder must be connected to your TV using a SCART cable, and the AV. Link setting (page 117) should be set to This Recorder Only.² See also Pause Live TV on page 118 for more on this.

In order to use Pause Live TV, make the following connections and settings.

 Pause Live TV will not work as expected when watching TV via an external component such as a VCR or digital tuner. It only works with the channel selected on the TV.

Note

1 Except during Chase Play.

- 2 Not all TVs support this feature. Check the instructions that came with your TV if you are unsure.
 - This feature will not work unless your TV is compatible with AV Link. See the operating instructions that came with your TV if you're unsure about your TV's compatibility with this feature.



Important

- Pause Live TV only works with the built-in A.TV (analog) tuner. It does not work with the D.TV tuner or the external inputs. Make sure the **Auto Channel Setting** is set to **Download from TV** (see *Auto Channel Setting* on page 108).
- 1 Connect this recorder to your TV with a SCART cable.
- 2 Press HOME MENU.
- 3 Select 'Initial Setup' > 'Options2' > 'Pause Live TV' > 'TV's Tuner'.
- 4 Select 'Initial Setup' > 'Analog Tuner' > 'Auto Channel Setting' > 'Download from TV'.
 - If the Download from TV option appears grayed out, check the connections to your TV and try again.
 - Depending on your TV, you might have to switch off and unplug it for a few moments before plugging it back in and switching it on again.
- 5 Follow the on-screen instructions.

Using the recorder's internal tuner for Pause Live TV

If you haven't connected to your TV using a SCART cable (or your TV is not compatible with AV Link) you can use the recorder's internal tuner for the Pause Live TV.

- 1 Press HOME MENU.
- 2 Select 'Initial Setup' > 'Options2' > 'Pause Live TV' > 'Recorder's Tuner'.
 See Pause Live TV on page 118 to do this.

You can record the channel selected on the recorder.

Using Pause Live TV

1 Start recording the current TV channel.

Recording continues with playback paused.

- Note that it may take up to 10 seconds for recording to start.
- 2 Press to start playback.

You can also use the scan buttons (◄◄/ ►►), pause (**II PAUSE**) and stop (**II STOP**) — all without affecting the recording.



Press to stop the recording.

The operation is slightly different depending on the viewing source. See the *Operation table* below for details.



- When the Pause Live TV setting (see page 118) is set to TV's Tuner, you can press PAUSE LIVE TV while the recorder is in standby to switch on and immediately start recording. When set to Recorder's Tuner, it is not possible to use the Pause Live TV feature from standby.
- After pressing PAUSE LIVE TV, it will take at least 10 seconds for the picture to change (during this time, all controls except the power button are inoperative). (Note that startup from standby is not possible if you have selected Recorder's Tuner in Pause Live TV on page 118.)
- Please note that you can't record from another component (VCR, etc.) that is connected by a SCART cable to the AV2 (INPUT 1) connector using the Pause Live TV feature.

Operation table

Viewing source	TV/DVD mode of DVR	DVR source	Pause Live TV function button	Condition
TV built-in analog tuner	TV	-	Pause Live TV	Preset channel of DVR and TV are matched after downloading from TV.
			Direct TV recording*1	Preset channel of DVR and TV are NOT matched after downloading from TV. Record TV programme that you're watching.
TV built-in digital tuner	TV	-	Direct TV recording*1	Preset channel info. in D.TV cannot be shared by DVR even after Download from TV. Record TV programme that you're watching.
External input of TV	TV	-	Direct TV recording*1	Record TV programme that you're watching.
DVR built-in analog tuner	DVD	DVR built-in analog tuner	Pause Live TV	
DVR built-in digital tuner	DVD	DVR built-in digital tuner	Pause Live TV	

^{*1} No Chase Play! Warning if you change input this will stop the recording.

About timer recordings



Using the timer recording features you can program up to 32 timer recordings up to a month in advance. Timer recording programmes can be set to record just once. every day, or every week.

You can set the recording quality for your timer recording in the same way as for a regular recording, but with the added option of an AUTO mode, which maximizes the recording quality for the space available on the disc (if recording to DVD), or to fit on to a blank DVD disc (if recording to the HDD).

You can set timer recordings to record to a recordable DVD or to the hard disk drive. For regular (daily or weekly) HDD timer recordings that you don't need to keep, you can use the Auto Replace Recording feature to automatically replace the previous timer recording with the new one. Note that when

you use this feature, the previous recording made on that timer programme will be replaced by the next one, regardless of whether you have watched it vet or not.

You can also set the recorder so that it will adjust the recording quality to try and fit the recording on to the disc if it would not otherwise fit at the recording quality you set (see Optimized Rec on page 114 for more on this).

Finally, if you set a timer recording to record to DVD but there isn't a recordable DVD loaded at the time of the recording, the Recovery Recording feature will automatically record the programme to the HDD for you.



Important

- A timer recording can't be set if there are already 32 timer programmes waiting to be recorded.
- Timer recording will not start if:
 - The recorder is already recording.
 - A disc is being initialized, finalized or unfinalized.

- Timer recording will start when the operation preventing timer recording has finished.
- When the front panel display is set to ON, the timer indicator (②) lights in the front panel display when the timer is active. If the indicator is blinking it means that (for a DVD timer recording) there is no disc loaded, or the disc loaded is not recordable (for an HDD timer recording it means that the HDD is not recordable).
- Approximately two minutes before a timer recording is set to start, the recorder will go into timer recording standby. In timer recording standby you cannot use some functions.
- The maximum length for timer recordings made to the HDD is 24 hours. However, because one title (HDD) is limited to 12 hours, recordings over 12 hours will be spread over two titles. Note that there will be a break in the recording of a few seconds between titles.
- When a scheduled recording finishes, this unit's power is not turned off if the power for the plasma television is on. If you want this unit's power to turn off after a timer recording finishes, set the HDMI Control to Off (page 117).

Timer recording using the G-Code programming system

This system makes programming timer recordings very simple. Most TV guides publish G-Code programming numbers with their programme details. If you want to make a timer recording of a programme, you just input the corresponding code. The date, start, stop and channel settings are made automatically. All you have to do is tell the recorder the recording mode, and whether it's a once-only recording or a regular recording.

Note that if the country setting is incorrect (set in the Setup Navigator), timer recordings made using the G-Code programming system may not work as expected.

1 Press 'G-Code' to display the G-Code programme screen.

You can also access this screen from the Home Menu (press **HOME MENU**, select **Timer Recording**, then **G-Code system**).



- Use the number buttons to enter the G-Code programming number. (To clear the last digit entered, press **CLEAR**.)
- You can also use the ↑/↓/←/→ buttons to select digits from the onscreen display.

2 After making the settings, select 'Enter' and press ENTER.

The timer recording screen appears with the timer programme you just set.

3 Confirm that the settings are correct.

If the channel number isn't displayed, use the ←/→ buttons to highlight **CH**, then use the ↑/♣ buttons to set the correct channel number.

• If the channel number is set, but incorrectly, set up the guide channel (see *G-Code CH Setting* on page 109).

4 Select 'Store Programme' to finish.

 Other options in the same menu panel allow you to name the programme, and change the recording destination and/or recording mode.

Checking/editing timer recording settinas

You can check and/or edit the timer recording settings made by the G-Code system by selecting Details from the G-Code# setting screen.

Select 'Details' from the G-Code# setting screen.

The Timer Programme Set screen appears, filled out with the timer recording details.

2 Check and edit the fields as necessary.

See Setting timer programmes on page 33 for more on this.

Select 'Store Programme' to save the timer programme and exit.

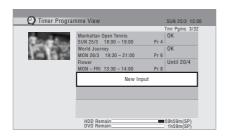
Editing a timer programme

You can change any of the settings in a timer programme before the recording is due to start. Even if a programme is currently being recorded, you can program a new end time or edit its extend time parameter.

Press to display the Timer Programme View screen.

You can also access the Timer Programme View screen from the Home Menu (press **HOME MENU**, select Timer Recording, then Timer Recording).

This screen shows all the timer programmes currently set.



- Each row is for one timer recording programme, with the date and time information, channel, recording mode, DVD or HDD and recording status.
- The amount of free space available on the HDD and the currently loaded recordable DVD is shown towards the bottom of the screen.
- In the upper-right corner, the number of timer programmes already set is shown next to Tmr Pgms.
- If there are more than five timer. programmes already set, press ►► NEXT to switch page (go back using the I◀◀ PREV button).
- You can also delete a timer programme before it's started (before the recorder enters timer recording standby) by highlighting it and pressing **CLEAR**. See also Deleting a timer programme on page 47.

Highlight the timer programme you want to change.

If you want to set a new timer programme, select 'New Input' and skip to step 4.

Press ⇒ then select 'Modify' from the command menu panel. Alternatively, press ENTER.

The Timer Programme Set screen appears from which you can edit the settings.



Enter the timer recording settings.

Use the ←/→ buttons to select a field: use the 1/4 buttons to change the value. For more information on the options available at the Timer Programme Set screen, See Setting timer programmes on page 33.

5 After entering all the timer recording information, highlight 'Store Programme' and press ENTER.

The timer recording list screen is displayed again. The timer programme you just input appears in the list. The rightmost column shows various timer recording status messages:

- OK Can be recorded.
- **Time Over** Not enough space on the HDD (the recording won't finish).
- Over 12h Recording time of over 12 hours set (when recording to the HDD the recording will be split into two titles).
- Overlap Two timer programmes partially or completely overlap. The one starting earlier will take priority.
- Until ... (eg., Until 13/8) For a regular recording, the last programme that could be recorded is shown.
- Data Over Can't record because the disc management area of the disc is full.
- Cancel Once A regular timer programme is set to skip.
- Can't Rec Not possible to record.
- Title Over Can't record because there is already the maximum number of titles on the disc (HDD: 999; DVD: 99).
- **Recording** The programme is currently recording.
- **Standby** The recorder is in timer recording standby.
- nothing displayed Another timer recording or copying is in progress.

6 ROMEMBRO Press to exit the timer recording screen.



 If you set a DVD timer recording but there is no recordable DVD disc loaded, or the disc loaded doesn't have enough free space for the complete recording, Recovery is shown. In this case (unless you load a suitable disc before the recording actually starts), the recorder will use the HDD for recording. (The message **Can't Rec** will appear if there are already 999 titles on the HDD or if there is not enough free space on the HDD for recording.)

Deleting a timer programme

You can delete timer programmes you no longer need.

1 Press TIMER REC.

2 Highlight the timer programme you want to erase.

3 Press ⇒ then select 'Erase' from the command menu panel.

- Select **Yes** to confirm or **No** to cancel.
- You can also just press **CLEAR** when the timer programme is highlighted.

Skipping a regular timer programme

If you've set a regular daily or weekly timer programme, you can set the recorder to skip the next scheduled recording.

1 Press TIMER REC.

2 Highlight the timer programme you want to skip.

3 Press ⇒ then select 'Cancel Once' from the command menu panel.

- In the timer programme list, **Cancel Once** appears by the programme.
- You can also just press **II PAUSE** when the timer programme is highlighted.

Extending a timer recording in progress

You can extend a timer recording beyond the programmed end time. This can be useful if a broadcast programme overruns, for example.

Cancelling or extending the timer

Press and hold for three seconds during a timer recording.

Recording continues, but the timer indicator disappears from the front panel display indicating that the timer has been cancelled.

Press repeatedly to extend recording in 30 minute blocks.

Stopping a timer recording

Press during a timer recording.



Select 'Yes' to confirm.

Preventing use of the recorder before a timer recording (child lock)

You can make all the front panel and remote control buttons inoperative using the child lock feature. This is useful when you set a timer recording and want to make sure that the timer settings are not changed before recording has finished.

- If the recorder is on, switch it into standby.
- [Front panel] Press and hold for three seconds to lock the controls. The front panel display briefly shows

LOCKED. If any buttons are pressed on the remote or front panel, **LOCKED** is briefly displayed again.

- To unlock the recorder, press and hold ■ (Stop) on the front panel (while the recorder is stopped) for three seconds until the display shows UNLOCKED.
- Even if you make Child Lock settings. this unit can still be controlled by the remote of a connected plasma television. If you do not want this unit to be able to be controlled by another component when you have set a Child Lock, turn this unit's **HDMI Control** to **Off** (page 117).

Timer recording FAQ



Frequently Asked Questions

- Even though the timer is set, the recorder doesn't start recording!
 - Check that the disc loaded or HDD is recordable, not locked (see Lock Disc on page 100), and that there are fewer than 99/999 titles already on the DVD/HDD.
- The recorder won't let me enter a timer programme! Why not?
 - You can't enter a timer programme if the clock isn't set.
- What happens when two or more timer programmes overlap?

Basically, the programme with the earlier recording start time has priority. However, the recorder will start recording the programme with the later start time after the earlier programme is finished. If schedule to record two programmes have the same times (but different channels, for example), then only one of the two programmes will be recorded. In this event you should cancel the scheduled recording of the lesser important programme. If one of the overlapping programmes is a regular timer programme for a digital broadcast. you may choose 'Cancel Once' in order to avoid having it overlap with a separately scheduled programme (see Skipping a regular timer programme on page 47).

Simultaneous recording and playback (Chase Play)

HDD

Chase Play allows you to watch a recording that is still in progress from the start, without having to wait until the recording has finished (i.e., playback is 'chasing' the recording).

In fact, you're not just limited to watching the recording in progress. You can watch anything else already on the HDD (or on a DVD if you're recording to the HDD) by selecting it from the Disc Navigator screen (see *Using the Disc Navigator with recordable discs and the HDD* on page 57).

Chase Play is not possible when DV is the recording input.

- Press during recording to start playback from the beginning of the current recording ¹.
- Press during recording to select another title to play.

You can use all the usual playback controls, such as pause, slow-motion play, scan and skip.

- To stop playback, press STOP (recording will continue).
- To stop recording, press

 STOP REC
 (playback will continue).
- During recording or in timer recording standby, you can't play an HDD title, DVD or Video CD/Super VCD disc if the Input Line System setting doesn't match the TV line system of the disc/HDD title (see also Additional information about the TV system settings on page 119).

Also, during simultaneous recording and playback, if the TV line system of the playback track/title changes then playback will automatically stop.

Recording from an external component

DVD (VR) DVD (Video) DVD+R DVD+RW DVD-RAM (HDD)

You can record from an external component, such as a camcorder or VCR, connected to one of the recorder's external inputs.

When using the Video Control function of an external component, set the **HDMI Control** to **Off** (page 117).

1 Make sure that the component you want to record from is connected properly to the HDD/DVD recorder.

See Chapter 2 (Connecting up) for connection options.

2 Press repeatedly to select one of the external inputs to record from.

The current input is shown on-screen and in the front panel display:

- AV2/L1 Input 1
- L2 Input 2 (front panel)
- **L3** Input 3

Check that the **Audio In** settings for **External Audio** and **Bilingual Recording** are as you want them (see *Audio In* on page 110).

- If the aspect ratio is distorted (squashed or stretched), adjust on the source component or your TV before recording.
- To watch video coming in via the DV input (front panel), select DV > DV Video Playback from the Home Menu (see also Playing from a DV camcorder on page 64).

3 \bigcap^{RECMODE} Set the recording quality.

• See Setting the picture quality/recording time on page 40 for detailed information.

4 Select the HDD or DVD for recording.

5 Press to start recording.

 If your source is copy-protected using Copy Guard, you will not be able to record it. See Restrictions on video recording on page 38 for more details.

Playing your recordings on other DVD players

DVD (VR) DVD (Video) DVD+R DVD+RW

Most regular DVD players can play finalized discs recorded in DVD-R/-RW (Video mode) and DVD+R discs. A number of players (including many Pioneer models) can also play DVD-RW discs recorded in VR mode, finalized or not. Most players will not play VR mode DVD-R discs, although some DVD-ROM drives and DVD recorders may be able to (finalization might be necessary). Check the manual that came with the player to check what kinds of discs it will play.

When you finalize a DVD-R/-RW (Video mode) or DVD+R disc, a title menu is created from which you can select titles when you play the disc. There are a number of different styles of title menu to choose from to suit the content of the disc.

All the title menus are navigated in the usual way, pressing **MENU** or **TOP MENU** to display the menu, then using the \(\frac{1}{4}\)/\(\frac{1}{4}\)/\(\frac{1}{4}\) of followed by **ENTER** to select titles and start playback.

Finalizing a disc

DVD (VR) DVD (Video) DVD+R DVD+RW

Finalizing 'fixes' the recordings on the disc so that it can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.¹

Note that the disc name will appear in the title menu after you finalize a disc. Make sure the disc name is as you want it before you finalize the disc as it can't be changed afterwards. If you want to rename the disc, see *Input Disc Name* on page 100 before starting the steps below.

DVD+RW discs don't generally need finalizing. However, if you want a title menu to appear when you play the disc, then you will need to finalize. When using a DVD+RW, you can still record and edit even after finalizing. although the title menu will disappear if you do so. Finalize the disc again to generate a new title menu.

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Important

- Once you've finalized a DVD-R/-RW (Video mode) or DVD+R disc, you can't edit or record anything else on that disc. However, the finalization on a DVD-RW disc maybe 'undone'; see *Undo Finalize* on page 101 for how to do this.
- A VR mode DVD-R/-RW (excluding DVD-R DL) disc can still be recorded and edited on this recorder even after finalizing.
- DVD-R DL (Video mode) discs and DVD+R DL discs must be finalized in order to play in other recorders/players. Note however that some recorders/ players will not play even finalized duallayer discs.



1 If the TV line system of the disc is different to the current setting of the recorder, you will not be able to finalize the disc. See *Additional information about the TV system settings* on page 119 for how to change the recorder's setting.

1 Load the disc you want to finalize.

Make sure that the recorder is stopped before proceeding.

2 ROMEMENU Select 'Disc Setup' from the Home Menu.



3 Select 'Finalize' > 'Finalize' > 'Next Screen'.



4 For DVD-R/-RW (Video mode) and DVD+R/+RW discs only, select a title menu style, then select 'Yes' to start finalization or 'No' to cancel.

The menu you select will be the one that appears when the 'top menu' (or 'menu' for a DVD+R/+RW) is selected on any DVD player.



 Discs recorded partially or fully on the Pioneer DVR-7000 DVD recorder do not support this feature. These discs will have only a text title menu when finalized on this recorder.

5 The recorder will now start finalizing the disc.

During finalization:

- If the finalization process of a DVD-RW or DVD+R/+RW disc is going to take more than around four minutes, you can press ENTER to cancel. Around four minutes before completion, the option to cancel disappears.
- You can't cancel the finalization of a VR mode DVD-R disc.
- How long finalization takes depends on the type of disc, how much is recorded on the disc and the number of titles on the disc. A disc recorded in VR mode can take up to one hour to finalize. DVD-R/-RW (Video mode) and DVD+R/+RW discs can take up to 20 minutes.

Initializing recordable DVD discs

DVD-R DVD-RW DVD+RW DVD-RAM

DVD-R/-RW discs can be initialized for either Video mode recording or VR mode recording.¹

When you first load a blank DVD-RW or DVD+RW disc, the recorder initializes it for recording automatically. By default, blank DVD-RW discs are initialized for VR mode recording. See *DVD-RW Auto Initialize* on page 52 if you want to change the default to Video mode.

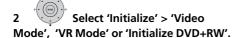
DVD-R discs are ready for Video mode recordings out of the box; if you want to use a DVD-R for VR mode recording, you must initialize it before recording anything on the disc.

DVD+RW and DVD-RAM discs can also be initialized in order to erase the contents of the disc.



Important

- Initializing a DVD-RW, DVD+RW or DVD-RAM disc will erase everything recorded on it. Make sure there is nothing on the disc that you want to keep!
- You may not be able to re-initialize a DVD-RW disc in a different format if it was originally initialized on an older DVD recorder.
- Once initialized for VR mode recording, you can't re-initialize a DVD-R back to Video mode.
- 1 Select 'Disc Setup' from the Home Menu.







Select 'Start'.

It takes about 30 seconds to initialize the disc (except DVD-RAM discs, which can take up to an hour).



DVD-RW Auto Initialize

DVD-RW

• Default setting: VR Mode

Initialization mode is automatically carried out when you insert a blank DVD-RW. You must set the desired initialization mode before inserting a disc.

1 Select 'Disc Setup' from the Home Menu.



2 Select 'Basic'>'DVD-RW Auto Init.', then 'VR Mode' or 'Video Mode'.



Chapter 7 Playback

Introduction

Most of the features described in this chapter make use of on-screen displays. Navigate these using the cursor buttons and **ENTER**. To go back one level from any screen, use the **RETURN/EXIT** button.

Remember also that the button guide at the bottom of every screen shows which buttons do what.

Many of the functions covered in this chapter apply to the HDD, DVD discs, Video CDs, Super VCDs, WMA/MP3/DivX discs and CDs, although the exact operation of some varies slightly with the kind of disc loaded.

- Many functions are not available when a Video CD is playing in PBC mode. Start playback from the Disc Navigator screen for non-PBC playback (see Using the Disc Navigator with playback-only discs on page 58).
- For discs that contain JPEG picture files, see The PhotoViewer on page 92.

Basic playback



This section shows you how to use your recorder for playback of discs (DVD, CD, etc.), and for playback of video from the HDD.



 Throughout this manual, the term 'DVD' means any kind of playable or recordable DVD. If a function is specific to a particular kind of DVD disc, it is specified.

 Some DVD-Video, DVD+R and DVD+RW discs don't allow certain playback controls to operate at certain points in the disc. This is not a malfunction.

Select the HDD or DVD for playback.

- If playing video from the HDD, skip to step 3 below.
- Select DVD for any kind of disc playback.

[Front panel] Load a disc.

Load a disc with the label side facing up. using the disc tray guide to align the disc (if you're loading a double-sided DVD-Video disc, load it with the side you want to play face down).

 If you want to play a DTS audio CD, please first read the note on page 55.

3 **○ ▶** Start playback.

- If you're playing a DVD-Video or Video CD, a disc menu may appear when you start playback. Use the 1/4/←/→ buttons, number buttons, and ENTER to navigate DVD disc menus, and the number buttons and **ENTER** for Video CD menus.
- When playing video from the HDD, playback will automatically stop after the end of a title is reached.
- There may be a slight pause when playback switches from the first to the second layer of a dual-layer disc.
- See the following sections for more details on playing specific kinds of discs.



Press to stop playback.

When you've finished using the recorder, eject the disc and switch the recorder back into standby.

Playing DVD discs

The table below shows the basic playback controls for DVD-Video, and recordable DVD discs.



Press to start playback. If **RESUME** is displayed onscreen, playback starts from the place last stopped.



Press to stop playback. You can resume playback from the same point by pressing

► PLAY. (Press ■ STOP again to cancel the resume function.)



Pauses playback, or restarts playback when paused.



Press to start scanning. Press repeatedly to increase the scanning speed.



Press to skip to previous/next chapter/title. (During playback you can also use the front panel CH +/- buttons.)

DVD+R/DVD+RW only:

I◀◀ PREV may not always skip to the previous title.











Except VR mode: During playback, enter a chapter number then press ENTER to skip directly to that chapter within the currently playing title.

On some discs, you can also use the number buttons to select numbered items in the disc menu.

VR mode only: During playback, enter a title number then press ENTER.

All: Press CLEAR to clear a number entry and start again.



(Commercial back/skip) Turn the Smart Jog counterclockwise for backward skip; turn clockwise for forward skip. You can search up to two hours in either direction.



While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.

While paused, press to advance a single frame in either direction. You can also execute frame-by-frame playback/backward scanning via the

Smart Jog.



Press to display the menu of a DVD-Video disc. (DVD+R/+RW discs finalized on this recorder will display the Disc Navigator. Press **MENU** to display the disc menu.)



Use the cursor buttons to navigate DVD-Video disc menus: press **ENTER** to select items.



Press to return to the previous level of a DVD-Video disc menu.

Playing from the HDD

The table below shows the basic playback controls when playing video recorded on the hard disk (HDD).



Press to start playback. If **RESUME** is displayed onscreen, playback starts from the place last stopped. Playback automatically stops after the end of a title is reached.



Press to stop playback. You can resume playback from the same point by pressing

► PLAY. (Press ■ STOP again to cancel the resume function.)



Pauses playback, or restarts playback when paused.



Press to start scanning. Press repeatedly to increase the scanning speed.





Press to skip to previous/next chapter/title. (During playback you can also use the front panel **CH +/-** buttons.)



0

During playback, enter a title number then press **ENTER** to skip directly to that title. Press **CLEAR** to clear a number entry and start again.





(Commercial back/skip)
Turn the **Smart Jog** counterclockwise for backward skip;
turn clockwise for forward skip.
You can search up to two hours
in either direction.

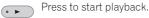


While paused, press and hold to start slow-motion playback. Press repeatedly to change the playback speed.

While paused, press to advance a single frame in either direction. You can also execute frame-by-frame playback/backward scanning via the **Smart Jog**.

Playing CDs and WMA/MP3 discs

The table below shows the basic playback controls for audio CDs¹, and WMA/MP3 files.





Press to stop playback.



Pauses playback, or restarts playback when paused.



Except WMA: Press to start scanning. Press again to increase the scanning speed. (There are two scan speeds; the current scan speed is shown on-screen.)





Press to skip to previous/next track (or folder for WMA/MP3 disc). (During playback you can also use the front panel **CH +/-** buttons.)



0

During playback, enter a track number then press **ENTER** to skip directly to that track. Press **CLEAR** to clear a number entry and start again.



Playing Video CD/Super VCDs

The table below shows the basic playback controls for Video CD/Super VCDs.

Some discs feature Playback Control (PBC for short) menus. These discs show PBC in the display when you load them and display a menu on-screen from where you can select what to watch.²



Press to start playback. *Video CD only:* If **RESUME** is displayed on-screen, playback starts from the place last stopped.



Press to stop playback.

Video CD only: You can resume playback from the same point by pressing ▶ PLAY. (Press

■ STOP again to cancel the resume function.)

- 1 If you want to play a DTS audio CD, make sure the recorder is connected to a DTS-compatible amp/receiver with a digital connection. Noise will be output through the analog outputs. Also make sure that **STEREO** is selected using the **DY AUDIO** button (see *Switching audio channels* on page 62).
- 2 When playing in PBC mode, some playback features, such as search, repeat and programme play are not available. You can play a PBC Video CD/Super VCD in non-PBC mode by starting playback using the Disc Navigator (see *Using the Disc Navigator with playback-only discs* on page 58).



Pauses playback, or restarts playback when paused.



Press to start scanning. Press repeatedly to increase the scanning speed.





Press to skip to previous/next track.

When a PBC menu is displayed, press to display the previous/ next page. (During playback vou can also use the front panel CH +/- buttons.)







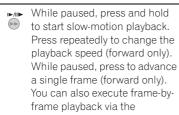
During playback, enter a track number then press **ENTER** to skip directly to that track. Press CLEAR to clear a number entry and start again. While a PBC menu screen is



displayed, use to select numbered menu items.



Video CD in non-PBC mode only: (Commercial back/skip) Turn the Smart Jog counterclockwise for backward skip; turn clockwise for forward skip. You can search up to two hours in either direction.



Smart Jog.



RETURNIENT Press to display the disc menu of a Video CD/Super VCD playing in PBC mode.

Playing DivX video files

The table below shows the basic playback controls for DivX video files.



Press to start playback. If RESUME is displayed onscreen, playback starts from the place last stopped. Playback of titles (DivX files) proceeds in alphabetical order.



Press to stop playback. You can resume playback from the same point by pressing ► PLAY. (Press ■ STOP again to cancel the resume function.)





Press to start scanning. Press repeatedly to increase the scanning speed.





Press to skip to previous/next title. (During playback you can also use the front panel CH +/buttons.)



While paused, press to advance one frame. Press and hold to start slow motion playback (press repeatedly to change the slow motion play speed). You can also execute frame-byframe playback via the Smart Jog.



Press to display the playback audio type; press repeatedly to change the playback audio type.



Press to display subtitle information; press repeatedly to change subtitles.

Using the Disc Navigator to browse the contents of a disc

Use the Disc Navigator to browse the contents of a disc and start playback.

Using the Disc Navigator with recordable discs and the HDD

DVD-R DVD-RW DVD+R DVD+RW DVD-RAM HDD

You can use the Disc Navigator to browse and edit video on recordable DVDs and the HDD, and to view information on titles.

See also Editing on page 67 for more on editing recordable discs.



Select the HDD or DVD.

2 Open the Disc Navigator.



You can also access the Disc Navigator from the Home Menu.



3

Browse the list of titles.

- You can also use the Smart Jog to select
- Use the I◄◄ PREV/▶►I NEXT buttons to display the previous/next page of titles.
- To change the thumbnail picture displayed for a title see Set Thumbnail on page 72.
- For HDD recordings, you should be able to see a thumbnail title digest. If it doesn't display, set Set Preview to Normal. See Set Preview on page 118.

Play the highlighted title.

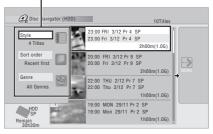
· You can also select Play from the command menu options.

Changing the display style of the **Disc Navigator**

You can choose to display titles in the Disc Navigator in various different ways, sorted alphabetically, by recording date, by genre, and so on. You can also choose whether to display four or eight titles on the screen at the same time.

Display the View Options panel.

The View Options panel



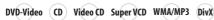
Choose 'Style', 'Sort order' or 'Genre', then press ENTER to see the available view options.

- Style Select four or eight titles per
- **Sort order** Sort by date (most recent first), unwatched first, title name or recording date (oldest first)
- Genre Display all genres or just a selected genre

Choose a view option, then press ENTER.

The title list display is updated according to the new display preferences.

Using the Disc Navigator with playback-only discs



1 HOMEMENU Display the Home Menu.



Select 'Disc Navigator'.

Alternatively, for a CD, Video CD, Super VCD or WMA/MP3/DivX disc, you can press **DISC NAVIGATOR**, which takes you straight to the Disc Navigator screen.



Select what you want to play.

Depending on the type of disc you have loaded, the Disc Navigator looks slightly different, but they are all navigated in the same way.

The screen below shows a WMA/MP3/DivX disc. Navigate to the folder, or the track/title within a folder that you want to play.



Playback starts after you press **ENTER**.

 For discs that contain CD-Audio tracks and WMA/MP3 tracks or DivX titles, you can switch the playback area between CD, WMA/MP3 and DivX. This can only be done while the disc is stopped.

Scanning discs



You can scan discs at various speeds, forwards or backwards.¹

- - The scanning speed is shown on-screen.

2 •• Press repeatedly to change the scanning speed.

There are four scanning speeds available when playing HDD video, a DVD or a DivX title. Reverse playback is also possible with HDD and DVD video.²

There are two scanning speeds for other types of disc.

Resume normal playback.

Playing in slow motion



You can play video at various slow motion speeds. DVDs and video on the HDD can be played in slow motion in either direction, while Video CDs/Super VCDs and DivX titles can only be played forwards in slow motion.

There is no sound when playing in slow motion.

- 1 Pause playback.
- 2 Press and hold to start slow motion reverse or forward play.
- 3 Press repeatedly to change the slow motion speed.

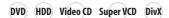
The current playback speed is indicated onscreen.

4 Resume normal playback.

Mote

- No subtitles are displayed when scanning DVDs and DivX titles.
- · No sound is output when scanning from the HDD, DVDs and DivX, except on forward SCAN 1.
- Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.
- 2 Reverse playback may not be smooth.

Frame advance/frame reverse



You can advance or back up video on a DVD disc¹ or the HDD frame-by-frame. With Video CDs/Super VCDs and DivX titles, you can only use frame advance.

- 1 Pause playback.
- 2 Back up or advance one frame with each press.
 - You can also do this by rotating the Smart Jog.
- 3 Resume normal playback.

The Play Mode menu



The Play Mode menu gives you access to search functions, repeat and programme play functions.

• ROMEMENU Select 'Play Mode' from the Home Menu.



Search Mode



The Search Mode feature lets you start playback from a specified point in a disc by time² or by title/chapter/folder/track number.

1 Select 'Search Mode' from the Play Mode menu, then choose a search option.

The available search options depend on the type of disc.



Enter a title/chapter/folder/

track number or a search time.



Time Search (HDD, DVD): For example, for 25 minutes into the current title, press **2**, **5**, **0**, **0**. For 1 hour and 15 minutes and 20 seconds into the title, press **1**, **1**, **5**, **2**, **0**.

Time Search (Video CD): For example, for 2 minutes and 30 seconds into the current track, press 2. 3. 0.

Title/Chapter/Folder/Track Search: For example, for track 6, press **6**.

3 ENTER Start playback.

A-B Repeat





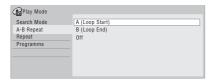


The A-B Repeat function allows you to specify two points (A and B) within a track or title that form a loop which is played over and over.³

1 During playback, select 'A-B Repeat' from the Play Mode menu.

- 1 Depending on the disc, normal playback may automatically resume when a new chapter is reached.
- 2 When using time search, playback may occasionally start slightly before or after the time you input.
- 3 If you switch camera angles on a DVD during A-B repeat play, A-B repeat is cancelled.

2 With 'A (Loop Start)' highlighted, press at the point you want the loop to start.



3 With 'B (Loop End)' highlighted, press at the point you want the loop to end.

Playback immediately jumps back to the start point and plays the loop round and round.

- When playing a DVD-Video, DVD-R/-RW (Video mode), DVD+R/+RW, or from the HDD, the start and end points of the loop must be in the same title.
- To resume normal playback, select Off from the A-B Repeat menu, or press CLEAR if no menu OSD (such as the Play Mode menu) is displayed.

Repeat play



There are various repeat play options, depending on the kind of disc loaded, or if you're using the HDD for playback. It's also possible to use repeat play together with programme play to repeat the tracks/chapters in the programme list (see *Programme play* below).¹

• Select 'Repeat' from the Play Mode menu, then choose a repeat play mode.



 To resume normal playback, select Repeat Off from the Repeat Play menu, or press CLEAR if no menu OSD (such as the Play Mode menu) is displayed.

Programme play

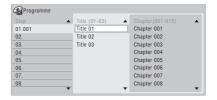


This feature lets you program the play order of titles/chapters²/folders/tracks on a disc or the HDD.



1 Select 'Programme' from the Play Mode menu, then 'Input/Edit Programme'.

The Input/Edit Programme screen varies according to the disc type. Below is the DVD input screen.



2 Select a title, chapter, folder or track for the current step in the programme list.

- 1 If you switch the camera angle during repeat play of a DVD-Video disc, repeat play is cancelled.
- 2 When playing a programme list of DVD-Video chapters, chapters not included in the programme list may be sometimes be played, depending on the disc.

After pressing **ENTER** to add the title/ chapter/folder/track, the step number automatically moves down one.

- To insert a step into the programme list, highlight the step number where you want to insert another step, then select a chapter/title/folder/track as usual. After pressing ENTER, all the subsequent steps move down one.
- To delete a step from the programme list, highlight the step you want to delete, then press CLEAR.

3 Repeat step 2 to build up a programme list.

A programme list can contain up to 24 titles/ chapters/folders/tracks.

Play the programme list.

Programme play remains active until you cancel programme play, erase the programme list, eject the disc or switch off the recorder.



- To save your programme list and exit the programme edit screen without starting playback, press HOME MENU.
- During programme play, press ►►I NEXT to skip to the next programme step.
- To repeat play the programme list, select Programme Repeat from the Repeat Play Mode menu (see Repeat play on page 60).
- Press CLEAR during playback to switch off programme play (if no menu OSD, such as the Disc Navigator, is displayed). Press while stopped to erase the programme list.

From the programme menu you can also:

Start Programme Play – Starts playback of a saved programme list Cancel Programme Play – Turns off programme play, but does not erase the programme list

Erase Programme List – Erases the programme list and turns off programme play

Displaying and switching subtitles

DVD-Video DivX

Some DVD and DivX discs have subtitles in one or more languages; the disc box will usually tell you which subtitle languages are available. You can switch subtitle language during playback.¹

Check the disc packaging for details of the subtitle options.

• Select/change the subtitle language.

The current subtitle language is shown onscreen and in the front panel display.

• To switch off subtitles, press SUBTITLE then CLEAR.

Switching DVD and DivX soundtracks



When playing a DVD disc or DivX title recorded with two or more soundtracks (often in different languages), you can switch the soundtrack during playback.²

- 1 Some discs only allow you to change subtitle language from the disc menu. Press MENU or TOP MENU to access
 - To set subtitle preferences, see Subtitle Language on page 112.
- 2 Some discs only allow you to change audio language from the disc menu. Press MENU or TOP MENU to access.
 - To set audio language preferences, see Audio Language on page 112.

Check the disc packaging for details of the soundtrack options.

• 📆 Change the audio soundtrack.

The current audio language is shown onscreen and in the front panel display.

- The sound may drop out for a few seconds when switching soundtracks.
- Some discs feature both Dolby Digital and DTS soundtracks. There is no analog audio output when DTS is selected. To listen to the DTS soundtrack, connect this recorder to a DTS decoder or AV amp/receiver with built-in DTS decoder via the digital output. See Connecting to an AV amplifier/receiver on page 18 for connection details.

Switching audio channels





Video CD Super VCD

WMA/MP3

For HDD¹ and VR mode content recorded with bilingual audio, you can switch between left (**L**) channel, right (**R**) channel, or both (**L+R**).²

When playing Video CDs and audio CDs you can switch between stereo, just the left channel or just the right channel.

Some Super VCDs have two soundtracks. With these discs you can switch between the two soundtracks as well as individual channels in each.

The audio channel(s) currently playing are indicated on-screen.

HDD DVD (VR) DVD-RAM

L+R – Both channels (default)

L - Left channel only

R - Right channel only

CD Video CD WMA/MP3

Stereo - Stereo (default)

1/L - Left channel only

2/R - Right channel only

Super VCD

1 Stereo – Soundtrack 1/Stereo (default)

1 L - Soundtrack 1/Left channel

1 R - Soundtrack 1/Right channel

2 Stereo – Soundtrack 2/Stereo

2 L - Soundtrack 2/Left channel

2 R - Soundtrack 2/Right channel

Switching camera angles

DVD-Video

Some DVD-Video discs feature scenes shot from two or more angles — check the disc box for details: it should be marked with a icon if it contains multi-angle scenes. When a multi-angle scene is playing, the same icon appears on screen to let you know that other angles are available (this can be switched off if you prefer — see Angle Indicator on page 115).

• Switch the camera angle.

- The angle number is displayed onscreen.
- If the disc was paused, playback starts again with the new angle.

Note

1 Only when HDD Recording Format is set to Video Mode Off (HDD Recording Format on page 115).

2 When playing a Bilingual recording on a VR mode disc, if you are listening to the Dolby Digital soundtrack via the digital output, you cannot switch the audio channel. Set **Dolby Digital Out** to **Dolby Digital** → **PCM** (see *Dolby Digital Out* on page 111) or listen via the analog outputs if you need to switch the audio channel.

Displaying disc information on-screen

You can display various on-screen information about the disc loaded or the HDD.

• Display/change the on-screen information.

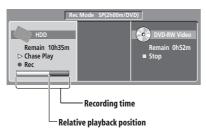
- Press once to show the HDD and removable disc (DVD, etc.) activity together. Press again to show the status of just the currently selected playback/ recording device (HDD or removable disc).
- To hide the information display, press **DISPLAY** repeatedly until it disappears.

HDD and removable disc activity display

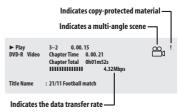
Press **DISPLAY** once to see the HDD and removable disc (DVD, etc.) activity. Use the **HDD/DVD** button to switch between the two kinds of display.

The example displays below show highspeed copying from HDD to DVD, and HDD chase playback.











- See *Switching camera angles* on page 62 for more on multi-angle scene switching.
- When using the simultaneous play and record feature, the display shows information for playback only.
- During real-time copy, the copy source playback information is displayed.
- The Video mode DVD-R/-RW displays become the same as a DVD-Video disc once the disc is finalized.
- The total recording time figure shown in parenthesis is calculated based on a 12 cm/4.7 GB disc at the displayed record setting.
- Recording and playback times for TV recordings are approximately 0.1 % shorter than the actual time. This is because of the slightly different frame rates of TV broadcasts versus DVD.
- The frame number is shown next to the elapsed time display when the disc is paused.
- Copy Once or Can't Record messages may appear in the stop or recording displays. These indicate that the broadcast TV programme contains copy control information.

Chapter 8

Playing and recording from a DV camcorder

You can play back and record video from a DV camcorder connected to the **DV IN** jack on the front panel of this recorder.



Important

- If you connect a second recorder using a DV cable, you cannot control the second unit from this one.
- You can't control this unit remotely from a component connected to the **DV IN** jack.

Playing from a DV camcorder

- 1 Make sure your DV camcorder is connected to the front panel DV IN jack.
- 2 From the Initial Setup menu, check that the DV audio input is setup as you would like.

See DV Input on page 111 for more on this.

- Check also that the Audio In settings for External Audio and Bilingual Recording are as you want them (see Audio In on page 110).
- 3 ROMEMBRO Select 'DV', then 'DV Video Playback' from the Home Menu.
- **4 Start playback on the camcorder.** Images from the camcorder should appear on your TV.
 - To record the incoming video, press HDD/DVD to select the HDD or a DVD for recording, then press REC. Press □ STOP REC to finish recording. If there is no signal from the device connected to the DV jack, or the signal is copy-protected, recording will pause. It will automatically restart once there is a recordable signal.

- The recorder will only start recording from the **DV IN** jack if there is a valid signal. Recording will pause if the signal is interrupted during recording.
- If your source is copy-protected using Copy Guard, you will not be able to record it. See Restrictions on video recording on page 38 for more details.

Recording from a DV camcorder

- The source signal must be DVC-SD format.
- You can't record date and time information from DV cassette.
- During DV recording, if a part of the tape is blank, or has copy-protected material on it, this recorder will pause recording. Recording will restart automatically when there is a recordable signal. However, if there is more than two minutes of blank tape, this recorder will stop recording and the camcorder should stop (depending on the camcorder).

Copying from a DV source

Using the recorder's remote, you can control both the camcorder and this recorder.



Important

- Some camcorders cannot be controlled using this recorder's remote.
- For best results when recording from a DV camcorder to this recorder, we recommend cueing the camcorder to the place you want to start recording from and setting the camcorder to play-pause.

Playing and recording from a DV camcorder

1 Make sure your DV camcorder is connected to the front panel DV IN jack. Also, set the camcorder to VTR mode.

2 Set the recording quality.

- See Setting the picture quality/recording time on page 40 for detailed information.
- 3 From the Initial Setup menu, check that the DV audio input is setup as you would like.

See DV Input on page 111 for more on this.

- Check also that the Audio In settings for External Audio and Bilingual Recording are as you want them (see Audio In on page 110).
- 4 ROMEMBRO Select 'DV', then 'Copy from a DV Source' from the Home Menu.
 - DV recording only works when the DV camcorder is in VTR mode with a tape loaded.
- 5 Select 'Record to Hard Disk Drive' or 'Record to DVD'.
- **6** Find the place on the camcorder tape that you want to start recording from. For best results, pause playback at the point from which you want to record.
 - Depending on your camcorder, you can use this recorder's remote to control the camcorder using the ■, ▶, II, ◄◄,
 ▶ , ◄II and II▶ buttons.



Select 'Start Rec'.



 You can pause or stop the recording by selecting Pause Rec or Stop Rec from the on-screen display. You cannot control the camcorder from this remote control during recording.

- If you restart recording after stopping the camcorder, the first few seconds of the camcorder tape will not be recorded.
 Use the pause button on your camcorder instead and recording will start immediately.
- HDD, DVD (VR Mode) and DVD-RAM only:
 A chapter marker is inserted every time there is a break in the timecode on the DV tape. This happens when the recording is stopped or paused then restarted, for example.
- If you don't want to see the DV recording screen during recording, press **DISPLAY** to hide it (press again to display).
- While recording, you cannot exit the DV recording screen using the HOME MENU or RETURN/EXIT button.

DV Auto Copy

DV Auto Copy allows you to make an exact copy of the contents of a DV source to the HDD or a DVD.

- 1 Make sure your DV camcorder is connected to the front panel DV IN jack.
 Also, set the camcorder to VTR mode.
- 2 Set the recording quality.
 - See Setting the picture quality/recording time on page 40 for detailed information.
- 3 From the Initial Setup menu, check that the DV audio input is setup as you require.

See DV Input on page 111 for more on this.

- Check also that the Audio In settings for External Audio and Bilingual Recording are as you want them (see Audio In on page 110).
- 4 Select 'DV', then 'DV Auto Copy' from the Home Menu.
 - DV recording only works when the DV camcorder is in VTR mode with a tape loaded.

Playing and recording from a DV camcorder



5 Select 'Record to Hard Disk Drive' or 'Record to DVD'.

The DV tape is rewound to the beginning. Once it is rewound, the DV tape is played from the beginning and copied to either the HDD or a DVD.

- If there is a gap of two minutes or more between recorded contents, the copying process is automatically stopped.
- Once copying is finished, the DV tape is automatically rewound.
- To cancel the copying process, press
 STOP REC for more than three seconds.

About automatic finalization

If you use a DVD-R/-RW (Video mode) or DVD+R/+RW disc for copying, it will automatically be finalized after copying is complete.

- You can't customize the background for DVD-R/-RW or DVD+R/+RW disc finalization.
- No title names are assigned.
- If you want to give the disc a name, please do so before you start the copy (see Input Disc Name on page 100).
- If a timer recording is scheduled to start, and in some other instances, the disc will not be finalized.

9

Frequently Asked Questions

 I can't get my DV camcorder to work with the recorder!

Check that the DV cable is properly connected. Also make sure that what you're trying to record is not copyprotected.

If it still doesn't work, try switching off the camcorder then switch back on.

There's a picture, but no sound!
 Try switching the **DV Input** setting (see *DV Input* on page 111) between **Stereo 1** and **Stereo 2**.¹

About DV

Using DV, also known as i.LINK or IEEE 1394-1995, you can connect a DV camcorder to this recorder using a DV cable for input of audio, video, data and control signals.

"i.LINK" and the "i.LINK" logo are trademarks.

- This recorder is only compatible with DVformat (DVC-SD) camcorders. Digital satellite receivers and Digital VHS video recorders are not compatible.
- You cannot connect more than one DV camcorder at a time to this recorder.
- You cannot control this recorder from external equipment connected via the DV IN jack.
- It may not always be possible to control the connected camcorder via the **DV IN** jack.
- DV camcorders can usually record audio as stereo 16-bit/48 kHz, or twin stereo tracks of 12-bit/32 kHz. This recorder can only record one stereo audio track. Set the **DV Input** setting as required (see *DV Input* on page 111).
- Audio input to the **DV IN** jack should be 32 kHz or 48 kHz (not 44.1 kHz).
- Picture disturbance in the recording may occur if the source component pauses playback or plays an unrecorded section of tape, or if the power fails in the source component, or the DV cable is disconnected.
- The **DV IN** jack is an input only. There is no output functionality.

Chapter 9 Editing

Editing options

The table below shows which commands you can use with the HDD and different disc types.

	HDD	DVD-R/-RW (Video mode), DVD+R/+RW	eo mode), (VR mode)	
			Original	Play List
Create (page 69)				•
Play (page 69)	•	•	•	•
Erase (page 69)	•	•	•	•
Edit > Title Name (page 70)	•	•	•	•
Edit > Set Thumbnail (page 72)	•	•	•	•
Edit > Erase Section (page 72)	•		•	•
Edit > Divide (page 73)	•			•
Edit > Chapter Edit (page 73)	•		•	•
Edit > Set Genre (page 74)	•			
Edit > Lock (page 75)	•	•	•	
Edit > Move (page 75)				•
Edit > Combine (page 76)				•
Genre Name (page 76)	•			
Multi-Mode (page 77)	•			
Undo (page 78)		•	• *1	• *1

^{*1} DVD-R/-RW only

The Disc Navigator screen

The Disc Navigator screen is where you can edit video content on unfinalized Video mode and DVD-R/-RW (VR mode) discs, DVD+R/+RW and DVD-RAM, as well as video content on the hard disk drive.

B.

Important

- Titles that have been recorded with a Input Line System setting different to the current setting of the recorder are shown in the Disc Navigator with a blank thumbnail image. See also Additional information about the TV system settings on page 119.
- During recording, if you display the Disc Navigator for the HDD, some of the titles may appear with a mark. These titles were recorded with a Input Line System setting different to the current setting of the recorder. During recording, these titles cannot be played.

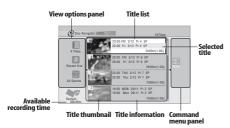
1 Select the HDD or DVD.

2 Display the Disc Navigator

screen.

Playback will automatically stop when you do this.

• The Disc Navigator is also accessible from the Home Menu.



• Press to display the command menu panel. Use the ↑/↓ and ENTER buttons to navigate the menus.

- When in the title list, press to display the previous/next page if there are more titles than can be displayed.
- Press to change the title information displayed in the title list.
- Press to switch between the HDD and DVD Disc Navigator screens.
- If you are editing a DVD-R/-RW (VR mode) or DVD-RAM disc you can display the Play List by selecting Play List from the view options panel (press ←, then select Play List from the view options, then Play List).



 Titles on the HDD marked with a licon are recently recorded titles that haven't yet been played.



MAYIGATOR Press to exit the Disc Navigator.

Editing accuracy

Some editing commands ask you whether you want to keep Video mode compatibility or frame accuracy (Video Mode Compatible Editing or Frame Accurate Editing).

Frame Accurate Editing is very precise. The edit point is accurate to the exact frame you choose. However, this accuracy is not preserved in any copy you make if you use the high-speed copy function to make a DVD-R/-RW (Video mode) or DVD+R/+RW.

Video Mode Compatible Editing is less precise. The edit point you choose will only be accurate to within one-half to one second. On the other hand, these edit points will be preserved if you use high-speed copy to make a DVD-R/-RW (Video mode) or DVD+R/+RW.

HDD genres

The large capacity of the HDD means that there may be many hours of video in the recorder. To help you organize your HDD video content you can assign different genres to titles. There are 20 genres in total. including five user-definable ones that you can name as you like.

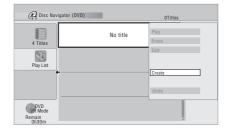
Create

DVD (VR) DVD-RAM Play List only

Use this function to create a Play List and add titles to it.

Before you can use this command, make sure that the Play List is switched on in the view options panel on the left.

Select 'Create' from the command menu panel.



Select an original title to add to the Play List.

You can also use the Smart Jog to select

Repeat these two steps to add as many titles as necessary to the Play List.

Plav

DVD(Video) DVD(VR) DVD+R DVD+RW DVD-RAM HDD

Use this function to start playback of a title.



Highlight the title you want

to play.

 You can also use the Smart Jog to select titles.



Select 'Play' from the command menu panel.

Playback of the title you selected starts.



Erase

DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM HDD

Use this function to erase unwanted titles.

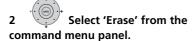
When you erase titles from the HDD or Original titles from a VR mode DVD-RW, the available recording space increases accordingly. Erasing a title from a DVD-RW (Video mode) or DVD+RW disc increases the available recording time only if it is the last title on the disc.¹

Erasing Play List titles, or titles from a DVD-R (VR mode or Video mode) or DVD+R, will not result in any more free space on the disc.



Highlight the title you want to erase.

 You can also use the Smart Jog to select titles.





Select 'Yes' to confirm or 'No'

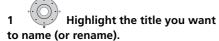


 You can erase a title quickly by pressing **CLEAR** when the title is highlighted. Confirm the edit by pressing **ENTER**.

Title Name

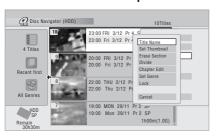
DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM HDD

You can give titles new names of up to 64 characters long for VR mode, DVD-RAM and HDD recordings, and up to 40 characters for Video mode recordings and DVD+R/+RW discs.

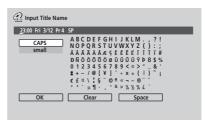


• You can also use the **Smart Jog** to select titles.

Select 'Edit' > 'Title Name' from the command menu panel.



Input a name for the selected title.



- A name generated automatically by the recorder will already be in the name input section of the screen. Use the ◄◄/►► buttons to change the cursor position.
- Select CAPS or small to change to upper or lower-case, or use the CASE SELECTION buttons (I◄◀ PREV/ **▶▶** | **NEXT**).
- You can also use the CLEAR button to delete characters directly (press and hold for two seconds to delete the whole name). For other remote control key shortcuts, see *Using the remote key* shortcuts to input a name on page 71.
- For discs formatted on a different DVD. recorder, you will see only a limited character set.

Select 'OK' to enter the name and return to the main Disc Navigator screen.

 To return to the main Disc Navigator screen without saving changes to the title name, press RETURN/EXIT.

Using the remote key shortcuts to input a name

The table below shows the remote control key shortcuts that you can use to input characters in the name input screen.

Pressing a button repeatedly cycles through the characters shown.

If you want to enter two characters in succession that are both on the same button (for example a **P** and an **R**), press ►► to advance the cursor one space manually between inputting the two characters.

Key	Characters	Key	Characters	
1	.,'?!-&1	6	mno6öôòó øñ	
2	abc2äàáâã æç	7	pqrs7\$ ÿ/ß ^{*1}	
3	def3èéëê	8	tuv8üùûú	
4	g h i 4 î ï ì í i	9	w x y z 9	
5	jkl5£	0	0	
44	[cursor back]	>>	[cursor for- ward]	
 ◀◀/	[change case]	CLEAR	[clear charac- ter]	
II	<space></space>		[finish name input]	
+	~ ()_/:;"`^@#*%\ + = {}[]<>			

^{*1} lower-case: ÿ; upper-case: β

Using a USB keyboard to enter a name

Using a USB keyboard connected to this recorder makes entering names very quick and convenient. When in USB keyboard input mode, a USB icon (♣♦) appears in the lower-left of the screen. 2

Other than the standard alpha-numeric keys, use the following keys when entering names:

Key	Function
← →	Change the cursor position
F1	Select CAPS
F2	Select small
delete	Delete character at the current cursor position
back space	Delete the character at the previous cursor position
enter	Enter the name
esc	Exit the input screen

^{1 •} It's possible that some USB keyboards will not work exactly as expected when connected to this recorder. See also *Connecting a USB device* on page 22 for more connection information.

[·] Certain keyboards may not be able to correctly input all characters.

² If you use the remote control to enter a name when in the USB keyboard input mode, the recorder will automatically switch to remote control input mode. Press any key on the USB keyboard to return to USB keyboard input mode.

Set Thumbnail

(HDD) DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM

You can change the thumbnail picture that appears in the Disc Navigator for a title to any frame that appears in that title.

1 Highlight the title you want to change the thumbnail picture for.

 You can also use the Smart Jog to select titles.

2 Select 'Edit' > 'Set Thumbnail' from the command menu panel.

The thumbnail setting screen appears from which you can find the frame you want.



3 Use the playback controls (▶, II, ◄◄, ▶▶, etc.) to find a suitable frame, then press ENTER to set.



You can also use the chapter and time search features (press the **YELLOW** button), and the **Smart Jog** (for **CM SKIP** and **CM BACK**).

4 Select 'Exit' to return to the Edit screen.

Erase Section

HDD DVD (VR) DVD-RAM

Using this command you can delete a part of a title, ideal for cutting out the commercial breaks in a recording made from the TV.

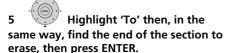
- 1 Highlight the title containing the section you want to erase.
 - You can also use the Smart Jog to select titles.
- 2 Select 'Edit' > 'Erase Section' from the command menu panel.
- 3 HDD only: Select the type of edit.



- For more information about these options, see *Editing accuracy* on page 68.
- 4 Highlight 'From' then use the playback controls (▶, II, ◄◄, ▶▶, etc.) to find the start of the section to erase, then press ENTER.

The bar at the bottom of the screen indicates the current play position in the title. After pressing **ENTER**, a marker shows the start of the section.





After pressing ENTER, another marker indicates the end of the section, with the section itself marked in red.



Select 'Yes' to confirm, or 'No' to cancel.

In the thumbnail viewer you can see a few seconds of video either side of the marked section to see how the edit will look.

• When editing VR mode Original content. you may not be able to erase very short sections (less than five seconds).

Divide

HDD DVD (VR) DVD-RAM Play List only

Use this command to divide a title into two. Note that once divided, the two new HDD titles cannot be recombined into one again.



- You can also use the Smart Jog to select titles.
- Select 'Edit' > 'Divide' from 2 the command menu panel.
- HDD only: Select the type of edit.



 For more information about these options, see Editing accuracy on page 68.

Use the playback controls (▶, II, ◄◄, ▶▶, etc.) to find the place you want to divide the title.



Press to divide the title at the current playback position.



Select 'Yes' to confirm or 'No' to cancel.

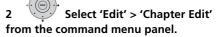


Chapter Edit

DVD (VR) DVD-RAM HDD

When editing a VR mode DVD or video on the HDD you can edit individual chapters within a title, with commands for erasing. combining and dividing.

- Highlight the title that contains the chapters you want to edit.
 - You can also use the **Smart Jog** to select titles.



9

Editing

a edit.

HDD only: Select the type of



- For more information about these options, see *Editing accuracy* on page 68.
- 4 Select the command you want:
 - Divide Divide a chapter into two or more parts: Use the playback controls (►, II, ◄◄, ►►, etc.) to find the point at which you want to divide the chapter, then press ENTER.



You can keep dividing the chapter as many times as you wish (up to 999 chapters per DVD-R/-RW/-RAM disc or 99 chapters per HDD title).

• Erase¹/Move² – Erase or move chapters: Select the chapter you want to erase/move and press ENTER. Select whether you want to erase or move the chapter.

Move command only: Select the destination for the chapter, and press **ENTER**



 Combine³ – Combine two adjacent chapters into one: Highlight the bar divider between two adjacent chapters and press ENTER.



5 Select 'Exit' to get back to the main Disc Navigator screen.

Set Genre



Use this command to assign a genre to a title.

- 1 Highlight the title you want to assign a genre to.
 - You can also use the Smart Jog to select titles.



- 1 When editing VR mode Original content, it may not be possible to erase chapters less than five seconds long. 2 VR mode Play List only.
- 3 It may not always be possible to combine two chapters, even though they are adjacent. If a chapter has been divided into three, then the middle chapter erased, it is not possible to combine the two remaining chapters into

Select 'Edit' > 'Set Genre' from the command menu panel.



Select a genre for the title.



Lock

HDD DVD (Video) DVD (VR) DVD+R DVD+RW DVD-RAM

Original only

You can lock a title so that it can't be edited or erased accidently. If you do need to edit it, you can always unlock it later.



Important

 You can't undo any edits made before changing the lock status. You also can't undo a lock/unlock command using the **Undo** option from the Disc Navigator menu.

Highlight the title you want to lock (or unlock).

• You can also use the **Smart Jog** to select titles.

2 Select 'Edit' > 'Lock' from the command menu panel.



An unlocked title will become locked: a locked title will be unlocked. Locked titles are shown in the Disc Navigator with a padlock icon.

Move

DVD(VR) DVD-RAM Play List only

Use this function to re-arrange the playing order of Play List titles.

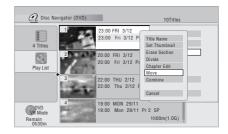


Highlight the title you want to move.

• You can also use the **Smart Jog** to select titles.

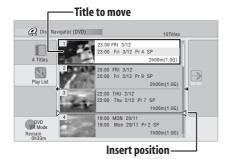


Select 'Edit' > 'Move' from the command menu panel.





Select a new position for the

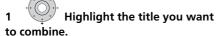


After pressing **ENTER**, the new, updated Play List is displayed.

Combine

DVD (VR) DVD-RAM Play List only

Use this function to combine two Play List titles into one.



You can also use the Smart Jog to select

This title will remain in the same place after combining with another title.

2 Select 'Edit' > 'Combine' from the command menu panel.



Select another title to combine with the first.

This title will be appended to the first title selected.

The screen below shows title 3 selected to be appended to title 1.



Select 'Yes' to confirm or 'No' to cancel.



Genre Name

HDD

Use this command to rename one of the five user-definable genres (Free 1 to Free 5).

Select 'Genre Name' from the command menu panel.



2 Select one of the user-definable genre names.



- Input a name for the genre.
- The name can be up to 12 characters long.
- For information on remote control key short cuts, see *Using the remote key* shortcuts to input a name on page 71.



4 Select 'OK' to enter the name and exit.

Multi-Mode



Multi-Mode allows you to select several titles, then select a command that will be applied to all of them. In this way you can select multiple titles and then erase them all at once, for example.

1 Select 'Multi-Mode' from the command menu panel.



2 Select titles from the title list.
Selected titles are marked with a ...

• You can also use the **Smart Jog** to select titles.

3 Select the command that you want applied to all the marked titles.

For example, select **Erase** to erase all the marked titles.



Once the command is completed, Multi-Mode is automatically exited.

Undo

DVD (Video) DVD (VR) DVD+R DVD+RW

If you make a mistake while editing, you can generally undo it. There is one level of undo (in other words, you can only undo the last edit you made).



Select 'Undo' from the

command menu panel.

· You can't undo anything after exiting the Disc Navigator screen.





Prequently asked questions

• Why doesn't the available recording time increase when I erase titles from a VR mode DVD-R?

When you erase titles from a DVD-R (or DVD+R), the titles are no longer displayed, but the content remains on the disc. DVD-R/+R are write-once media; they can't be erased or rewritten.

· I can't edit my disc!

You may find that as the available recording time is reduced on a VR mode DVD-R disc, editing is no longer possible. This is because information about your edits requires a certain amount of disc space. As you edit, this information builds up, eventually preventing you from editing further.

Chapter 10

Copying and backup

Introduction

Use the copying features of this recorder to:

- Back up important recordings stored on the HDD to a DVD.
- Make a DVD copy of a recording on the HDD to play in another player.
- Transfer video from a DVD to the HDD for editing.
- Transfer edited video from the HDD to DVD.

The simplest way to copy a title is to use the One Touch Copy feature. This copies the currently playing HDD title to DVD, or DVD title to the HDD. See *One Touch Copy* below for detailed instructions.

For more sophisticated copying tasks you can build a Copy List of titles to copy, and edit titles so that you only copy the bits you want. See *Using Copy Lists* on page 81 for detailed instructions.

Where possible, the recorder will copy your recordings at high-speed. Depending on the recording mode, the kind of disc loaded and various other factors, copying can be as fast as one minute per hour of video. See *Minimum copying times* on page 122 for more on copying times.

If you want to save disc space you can copy video at a lower recording quality (for example, an **XP** recording on the HDD copied to **SP** on a DVD). Copying in this way is always done in real-time.

When real-time copying from the HDD to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers in the original material are not copied. Chapter markers are put into the copy at intervals, according to the Auto Chapter settings (see also Auto Chapter (Video) and Auto Chapter (DVD+R/+RW) on page 114).

Restrictions on copying

Commercial DVD-Video discs are protected using Copy Guard. These discs cannot be copied to the HDD.

Some video material is copy-once protected. This means that it can be recorded to HDD, but it can't then be freely copied again. If you want to transfer copy-once protected material from HDD to DVD, you'll need to a CPRM ver. 1.1 or higher VR mode DVD-RW, ver. 2.0 or 2.1 VR mode DVD-R, or CPRM-compatible DVD-RAM disc (see *CPRM* on page 38 for more on this). Only one instance of a copy-once protected title can be added to the Copy List, and after it's been copied, the title is erased from the HDD (it is therefore not possible to copy a locked title that is copy-once protected).

You can identify copy-once protected material during playback by displaying disc information on-screen. If the current title is copy-once protected, an exclamation mark (!) is shown.

Copyright

Recording equipment should be used only for lawful copying and you are advised to check carefully what is lawful copying in the country in which you are making a copy. Copying of copyright material such as films or music is unlawful unless permitted by a legal exception or consented to by the rightowners.

One Touch Copy

* See also Copyright above.

The One Touch Copy feature copies the currently playing or selected (in the Disc Navigator) HDD title to DVD, or DVD title to HDD. The whole title is copied, regardless of where in the title you start the copy.

HDD to DVD copies are made in the same recording mode. When copying DVD to HDD, the copy is made in whatever recording mode is currently set.

Make sure that a recordable DVD disc is loaded when trying to copy from the HDD.

1 If you're copying from DVD to the HDD, select a recording mode.

Note that selecting a recording mode higher than the title playing will not result in a better quality recording.

2 Press during playback to copy the current title.

The front panel display indicates that the title is being copied.

- High-speed copying is used when copying from the HDD to DVD. Playback continues while copying.
- Real-time copying is used when copying from DVD to the HDD. Playback restarts from the beginning of the title.

Cancelling One Touch Copy

You can cancel a One Touch Copy once it's started.



• Press and hold for more than a second.

Copying is cancelled and the video already copied is erased.

 If you cancel a HDD to DVD-R/+R copy, the space available for recording does not return to the pre-copy figure.

Notes on copying using One Touch Copy

Copying to DVD

 Title name, chapter markers, as well as thumbnail picture markers for the Disc Navigator, are also copied. However, if you copy to a DVD-R/-RW (Video mode) or DVD+R/+RW, only the first 40

- characters of a name are copied.
- The chapter markers in the copy may not be in exactly the same positions as the original when recording on to a DVD-R/-RW (Video mode) or DVD+R/+RW.
- You can't use the One Touch Copy function to copy a title if any part of the title is copy-once protected.
- A title that contains mixed aspect ratios can't be copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Use a DVD-R/-RW (VR mode) or DVD-RAM disc for this type of material.
- Low resolution (SEP through LP modes¹) widescreen material can't be copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Use a DVD-R/-RW (VR mode) or DVD-RAM disc for this type of material.
- When HDD Recording Format is set to Video Mode Off, titles recorded in LP/ MN9 to MN15 modes cannot be highspeed copied to a DVD-R/ -RW (Video mode) or DVD+R/+RW. Please use a DVD-R/-RW (VR mode) or DVD-RAM.
- Recordings of bilingual broadcasts cannot be high-speed copied to a DVD-R/-RW (Video mode) or DVD+R/+RW. Please use a DVD-R/-RW (VR mode) or DVD-RAM.
- XP+ titles cannot be copied to DVD via One Touch Copy.
- Titles over eight hours cannot be copied to single-layer DVD+R/+RW discs using One Touch Copy. Use DVD+R DL discs for titles over eight hours.
- Titles recorded in MN1 to MN6, SEP, SLP or EP mode cannot be copied to DVD+R/ +RW using One Touch Copy.

Copying to the HDD

- The maximum title length for copying is 12 hours.
- Title name and chapter markers are also copied, except when copying from a finalized Video mode DVD-R/-RW.

- Thumbnail picture markers and chapter markers for the Disc Navigator are copied, but their position in the copy may be slightly changed from the original.
- If some part of the title being copied is copy-protected, copying will start, but the copy-protected portions will not be copied.

Using Copy Lists

* See also Copyright on page 79.

At its simplest, a Copy List is just a list of HDD or DVD titles that you want to copy. When copying HDD titles to DVD, you can, however, edit the titles in your copy list, erasing chapters you don't need, or renaming titles, for example. Edits you make to titles in the Copy List do not affect the actual video content; only the 'virtual' content of the Copy List. So you can freely erase and modify anything in your Copy List safe in the knowledge that the actual content is not being altered.

Copying from HDD to DVD



Important

- The recorder can only store one Copy List at a time.
- The Copy List is erased if the Input Line System setting is changed (see Additional information about the TV system settings on page 119).
- Resetting the recorder to its factory settings (see Resetting the recorder on page 136) will erase the Copy List.

1 Load a recordable DVD.

- It is possible to complete the following steps without having a recordable DVD loaded (or having an uninitialized DVD loaded); however, the steps are slightly different.
- If you want to use a DVD-RW (VR mode) disc for the copy, make sure it is initialized before you start.

2 BONEMEND Select 'Copy' from the Home Menu.



Select 'HDD → DVD'.



- If this is the first time to create a Copy List, skip to step 5 below.
- 4 If there is already a Copy List stored in the recorder, choose whether to 'Create New Copy List' or 'Continue Using Previous Copy List'.



- If you select **Continue Using Previous Copy List**, skip to step **10** below.
- Selecting Create New Copy List will erase any Copy List already stored in the recorder.

5 Add titles to the Copy List (highlight a title and press ENTER to add).



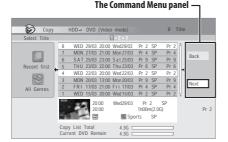
Titles you've added to the Copy List are highlighted in pink.

There are some restrictions on titles that can be added to the Copy List if you are copying to a DVD-R/-RW (Video mode) or DVD+R/+RW:

- When adding titles that contain copyonce protected material, the copy-once parts will not be added.
- When adding titles that contain material of more than one aspect ratio (screen size), each part with a different aspect ratio will be added as a separate title if high-speed copying is possible.

Depending on the title¹, high-speed copying may not be possible to DVDs.

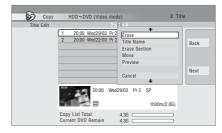
6 Press → to display the command menu panel.



7 Select 'Next' to move on to the Title Edit screen.



8 To edit a title, highlight it using the ↑/↓ buttons, then press ENTER.



A menu of editing commands appears:

- **Erase** Erase individual titles from the Copy List (see *Erase* on page 69).
- **Title Name** Name or rename a title in the Copy List (see *Title Name* on page 70).
- **Erase Section** Erase part of a title (see *Erase Section* on page 72).
- **Move** Change the order of titles in the Copy List (see *Move* on page 75).
- **Preview** Check the content of a title in the Copy List.
- **Divide** Divide a title in the Copy List into two (see *Divide* on page 73).
- Combine Combine two titles in the Copy List into one (see Combine on page 76).
- Chapter Edit Edit chapters within a Copy List title (see *Chapter Edit* on page 73):
 - Divide Divide a chapter into two.
 - **Erase/Move** Erase a chapter/ Change the chapter order.
 - **Combine** Combine two chapters into one.

Note

- 1 The following titles cannot be copied at high-speed for DVD+R/+RW:
 - Titles recorded in MN1 to MN6, SEP, SLP or EP mode.

The following titles cannot be copied at high-speed for DVD-R/-RW (Video Mode) and DVD+R/+RW:

- Widescreen titles recorded at low resolution (SEP through LP/MN1 to MN15 (Video Mode Off) or MN1 to MN8 (Video Mode On)).
- LP/MN9 to MN15 recordings when HDD Recording Format is set to Video Mode Off.
- · Bilingual recordings.
- Combined titles that were originally recorded using different recording modes.
- The following titles cannot be copied at high-speed for any types of DVD:
- XP+ titles.

- Set Thumbnail Set the thumbnail frame for a title (see Set Thumbnail on page 72).
- **Recording Mode** Set the picture quality of the copy (see Recording Mode on page 84).
- Bilingual Set how bilingual audio should be copied when copying from HDD to DVD-R/-RW (Video mode) and DVD+R/+RW (see Bilingual on page 85).
- Cancel Exit the menu.

Repeat this step for as many titles you have that need editing.



Display the command menu



Select 'Next' to proceed.



There are several options available from the next screen:

- Select **Recording Mode** if you want to change the recording quality (see Recording Mode on page 84).
- Select **Input Disc Name** if you want to change the disc name. Input a name of up to 64 characters for a VR mode disc or 40 characters for a Video mode disc or DVD+R/+RW. (The input method is similar to that of naming titles; see Title Name on page 70.)

 Select Finalize if you want to automatically finalize a DVD-R/-RW (Video mode) or DVD+R after copying.¹ Select a title menu style from the following screen.



Select 'Start Copy' to start copying.



- If you're using a DVD-R DL or DVD+R DL disc and the copy will span both layers, the **Copy List Total** bar will be purple.
- The Current DVD Remain bar will be half-length if the first layer of a DVD-R DL or DVD+R DL disc is already full.

Copying from DVD to HDD



Important

- The DVD to HDD Copy screen isn't accessible when a finalized Video mode DVD-R/-RW or a DVD-Video is loaded. As long as the disc is not Copy Guard protected, you can still use the One Touch Copy function, however (See One Touch Copy on page 79).
- The recorder can only store one Copy List at a time.
- The Copy List will be erased if:
 - any of the titles on the DVD disc are erased or edited.
 - the disc tray is opened.
 - playback is switched between Play List and Original.
 - the DVD disc is re-initialized or finalized.

- the recorder is reset to its factory settings (see *Resetting the recorder* on page 136).
- It may not be possible to copy from a DVD disc that was recorded on a different DVD recorder or a PC.

1 HOMEMEND Select 'Copy' from the Home Menu.

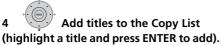


Select 'DVD/CD → HDD'.

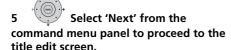


Select a Copy List type.

 Selecting Create New Copy List will erase any Copy List already stored in the recorder.



Titles you've added to the Copy List are highlighted in pink.



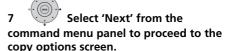


Select a title to edit.

A menu appears of Copy List editing commands:

- **Erase** Erase individual titles from the Copy List (see *Erase* on page 69).
- **Move** Change the order of titles in the Copy List (see *Move* on page 75).
- **Preview** Check the content of a title in the Copy List.
- Cancel Exit the menu.

Repeat this step for as many titles you have that need editing.



 Select Recording Mode if you want to change the recording quality (see Recording Mode below).



8 Select 'Start Copy' to start copying.

Recording Mode

1 Select 'Recording Mode' from the command menu panel.



Select a recording mode for by.

- High-Speed Copy¹ The Copy List is copied at the same recording quality as the original.
- XP, SP, LP, EP, SLP, SEP, MN² The Copy List is copied at the specified recording quality in real-time. (Note that if you copy at a higher quality setting than the original, the copy will not be better quality than the original.)

If you select **MN** above, you can also change the level setting (**MN1** to

MN32³, **LPCM** or **XP+**⁴) from the Recording Quality box that appears.

Note

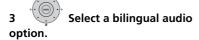
- 1 When copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers in the copy may not be in exactly the same position as the original.
- 2 When the copy mode is set to something other than High-Speed Copy for copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers of the original are not copied. Chapter markers are put into the copy at regular intervals, according to the Auto Chapter setting (see also Auto Chapter (Video) and Auto Chapter (DVD+R/+RW) on page 114).
- 3 When copying to a DVD+R/+RW, MN1 to MN3 and SEP modes are not available.
- 4 **XP+** mode available only when copying to HDD.

 Optimized^{1,2} – The recording quality is automatically adjusted so that the Copy List fits on to the space available on the disc. Copying is carried out in real-time.

When you change the recording mode setting, you can see how much disc space it will require. If this is more than is available, it shows up in red and you won't be able to start copying. In this case, either change the recording quality, or press **RETURN/EXIT** to go back to the Copy List screen and erase one or more titles from the Copy List.

Bilingual

- 1 Select the title containing the audio you want to change.
- 2 Select 'Bilingual' from the command menu panel.



Using disc backup

* See also Copyright on page 79.

This feature offers a simple way to make a backup copy of finalized DVD-R/-RW (Video mode) discs or DVD+R/+RW discs. The data is copied first to the hard disk drive³, then on to another recordable DVD disc.

1 ROMEMBRO Select 'Copy', then 'Disc backup' from the Home Menu.



Select a backup option.



There are three backup options:

- Start new disc back-up Start making a backup of a disc.
- Resume writing data Record the backup data already on the HDD to a recordable DVD.
- Erase back-up data Erase the backup data on the HDD.

3 Load the disc you want to make a backup of.

You can only make backup copies of finalized Video mode DVD-R/-RW discs, finalized DVD+R or DVD+RW discs (excluding DVD-R DL/DVD+R DL discs).



4 Select 'Start'.



• To see the progress of the backup, press **DISPLAY**.

Note

- 1 When the copy mode is set to something other than High-Speed Copy for copying to a DVD-R/-RW (Video mode) or DVD+R/+RW, the chapter markers of the original are not copied. Chapter markers are put into the copy at regular intervals, according to the Auto Chapter setting (see also Auto Chapter (Video) and Auto Chapter (DVD+R/+RW) on page 114).
- 2 Optimized mode only available when copying to DVD. Due to remaining space on the disc or the title that you copy, this mode does not always exactly fill a disc.
- 3 It is not possible to play this material directly from the HDD.

- You can cancel the backup process by pressing ONE TOUCH COPY for more than one second.
- 5 When the data has been copied, take out the disc and load a blank* recordable DVD.

* If you're using a DVD-RW or DVD+RW, the disc doesn't have to be blank, although the previous contents of the disc will be erased in the backup process.



You can use a DVD-R ver. 2.0, 2.1 or 2.2 disc, or DVD-RW ver. 1.1 or ver. 1.2 disc for the backup.

- If you backup a DVD-R disc to DVD-RW, you cannot undo the finalization later.
- Actual recordable capacity of discs vary so there may be cases where the contents of the disc you're backing-up will not fit on to a particular blank disc. If this happens, please try another brand of disc.
- DVD-R/-RW discs can only be backed up to DVD-R/-RW discs; DVD+R/+RW discs can only be backed up to DVD+R/ +RW discs.
- 6 Select 'Start' to start writing the backed-up data to the blank disc.



- To see the progress of the backup, press DISPLAY.
- You can cancel the backup process by pressing ONE TOUCH COPY for more than one second. However, this will make the disc unusable (although if you

- are using a DVD-RW or DVD+RW disc you can re-initialize it in order to make it usable again see *Initializing recordable DVD discs* on page 51.)
- 7 After the recorder has finished recording the backup disc, you can select whether to make another backup of the same data or exit.



- Select Start to make another backup copy or Cancel to finish. If you want to make another backup copy, return to step 6 above.
- **8** If you don't need to keep the backup data on the HDD, you can delete it now. Select **Yes** to delete the data from the HDD; select **No** to keep it (you can delete it later if you want to).



 If you decide to leave the backup data on the HDD, you can make backup copies to recordable DVD discs anytime from the Disc Back-up menu.

Chapter 11 Using the Jukebox

The Jukebox feature allows you to use the recorder's HDD to store and playback music from up to 999 of your CDs. You can also transfer WMA/MP3 files stored on CD-R/ -RW/-ROM, DVD, USB device or PC, Once on the HDD, you can name albums and tracks, assign them a genre, and set tracks that you don't want to play to Jump.

Copying music to the HDD

The first step is to copy some music to the HDD, CD audio, WMA and MP3 files are copied at high speed. All tracks are copied from each CD/DVD as an album.1

WMA/MP3 album and track names are copied along with the audio. CD album and track names are not copied, but you can add these later (see Editing Jukebox albums on page 91).

Usually, the tracks are copied to the HDD in the order they appear on the CD/DVD.

Note that once copied to the HDD, audio tracks cannot be copied to a recordable DVD disc.



Important

- While copying, no other recorder operation is possible.
- When copying, scheduled timer recordings will not start until copying is complete.
- Copy protected CDs may not copy successfully.
- Load the CD/DVD you want to copy to the HDD.
- 2 HOME MENU Select 'Copy' from the Home Menu.



Select 'DVD/CD to HDD'.

On pressing **ENTER** all tracks (or files) on the CD or all WMA/MP3 files on the DVD are copied to the HDD.

- You can also start copying by starting playback of the CD/DVD and then pressing **ONE TOUCH COPY**.
- To cancel copying press ENTER.
- If the CD loaded contains both CD audio tracks and WMA/MP3 files, the part currently selected will play.

Copying files via USB

Connecting a regular USB device

You can copy WMA or MP3 files from a connected USB device, such as a USB drive, to the HDD.

- Connect the USB device.
- 2 **HOMEMENU** Select 'Jukebox' from the Home Menu.



Select 'Copy Album' from the command menu panel.



Select 'Yes' to confirm or 'No' to cancel.

The selected folder on the USB device will be copied to the HDD.

Note

- 1 Up to 999 albums can be created in the Jukebox. If you copy via Connect PC, the total number of albums you are able to create may be less than 999 (for more information, see page 89).
 - Sound quality is not worsened when you copy data from another source.
 - · When playing back an album copied from a source whose original audio track plays continuously (such as a live recording), there will be a brief pause in sound between tracks.

 Up to 99 folders/999 files on the USB device can be copied/displayed.

Connect PC

Using a USB connection, you can copy WMA and MP3 files from a PC to the HDD of this device. Operations carried out on the PC require Windows Media Player 10.



Important

- If the PC you are using does not currently have Windows Media Player 10 installed, you must first install the program and make sure it functions correctly before connecting the USB cable and attempting to use the Connect PC function.
- For more information on Connect PC, see Using a PC on page 23.
- You cannot edit or delete albums from this device when it is connected to a PC via USB. If you wish to edit or delete albums via the Jukebox, you must first disconnect the USB cable.

1 Connect the PC via USB cable.

The screen below is displayed. Choose 'Take no action' and click 'OK'.

*Depending on the settings for Windows Media Player 10, the screen shown below may not be displayed.





2 Select 'Jukebox' from the Home Menu.



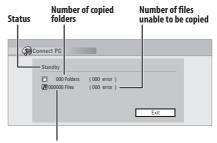
Select 'Connect PC'.



4 Select 'Yes' to confirm, or 'No' to cancel.

5 Verify that the import screen is displayed on the device.

If no actions are carried out for 20 minutes, the import screen is automatically closed. To reopen it, you will have to repeat steps 2 through 4.



Number of copied files

6 Open Windows Media Player 10 on the PC.

The device settings screen appears. Click 'Cancel'.

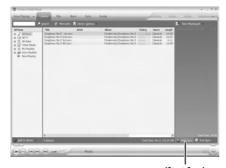
*Depending on the settings for Windows Media Player 10, the screen shown below may not be displayed.



From the PC, in Windows Media Player 10:

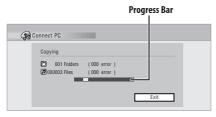
- 1. Click 'Library'.
- 2. Choose the artist, album or song you would like to copy, and press the right mouse button.
- 3. Click 'Add to Sync list' (when choosing songs, click 'Add to' then 'Sync list').
- 4. Click 'Start Sync'.

This begins the synchronization process. When finished, the message 'Synchronized to Device' is displayed in Windows Media Player 10.



'Start Sync'

For more information refer to the Help menu of Windows Media Player 10.



- To cancel the synchronization process while it is underway, press ENTER on the remote control. The Connect PC screen is closed.
- If synchronization fails, make sure that the Pioneer, HDD/DVD-Recorder device is selected at the synchronization screen of Windows Media Player 10, and try again.

When you have finished copying files, close Windows Media Player 10 on the PC.

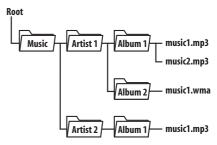


8 Close the import screen on this device.

 If no actions are carried out for 20 minutes after copying, the import screen is automatically closed.



 When using the sync function of Windows Media Player 10, music, artist and album folders are created as follows:



- Folders containing no files are not displayed in the Jukebox (such as the above 'Artist1' and 'Artist2' folders), but do count toward the maximum of 999 folders allowed in Jukebox.
- Up to 999 tracks can be included in one album. Note that when there are many tracks contained in one album, it may take time to display and transfer these
- Albums and tracks with no set name that are transferred from CD/DVD/USB are displayed as 'UnknownAlbum' and 'UnknownFile' in Windows Media Player
- · Album and track names that do not conform to the ISO8859-1 standard may display differently in Windows Media Player 10 and the Jukebox.
- · When albums are deleted in the Jukebox, their file hierarchy as displayed in Windows Media Player may change.

- File whose extensions are not supported by the Jukebox (i.e. files that are not .mp3 or .wma) cannot be transferred.
- Files imported to this recorder via Connect PC cannot be exported from this recorder.
- Note that no recording functions, including timer recordings, will be carried out when you are using the Connect PC function.

Playing music from the Jukebox

You can select albums or individual tracks from the Jukebox to play.

1 ® Select 'Jukebox' from the Home Menu.



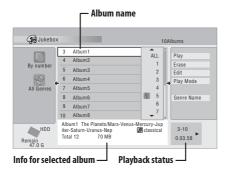
Select a Jukebox option.

- Listen to Music/Edit Listen to CDs or WMA/MP3 files that have been copied to the HDD.
- Listen to Music from USB device Listen to music from an external USB device.

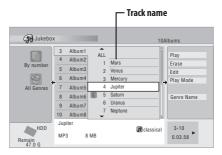


Select what you want to play.

The screen below shows albums stored on the HDD:



 If you select a whole album to play, all tracks that are not set to Jump will play. If you want to start playback from a selected track in an album, or play a track that is set to Jump, press → to enter the track list then select a track to play.



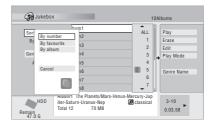
 Press SUBTITLE or ANGLE to change the page.

Changing the album view

1 From the album list, display the view options menu panel.



Select a view option.



Sort order

By number – Albums are listed by the album number.

By favourite – Most often listened to music appears at the top of the list.

By album – Albums are listed alphabetically.

Genre



All Genres – All albums are displayed. *Genre* – Only albums in the selected genre are displayed.

Editing Jukebox albums

A number of commands are available for editing and changing the playback behavior of albums.

1 ®MEMEN Select 'Jukebox' from the Home Menu.



Select 'Listen to Music/Edit'.



Select what you want to edit.

4 Select an edit function from the command menu panel.

- Erase Erase the selected track (if all tracks in an album are selected, the whole album is erased).
- Edit > Album name Enter a name of up to 64 characters for the album. See *Title Name* on page 70 for how to enter names.
- Edit > Track name Enter a name of up to 64 characters for the track. See *Title Name* on page 70 for how to enter names.
- Edit > Set Genre Set or change the genre for the album.
- Edit > Jump Set¹ Set a track to jump so that it doesn't play (choose this command again to cancel the Jump setting).
- Play Mode Change the playback order for albums and tracks.
- Genre Name Enter a name of up to 12 characters for a genre. See *Title Name* on page 70 for how to enter names.

Chapter 12 The PhotoViewer

From the PhotoViewer you can view JPEG photos and picture files stored on the HDD, recordable DVD or CD-R/-RW/-ROM, or on a USB-equipped digital camera. You can also import files and save them to the recorder's HDD or a DVD-R/-RW disc.

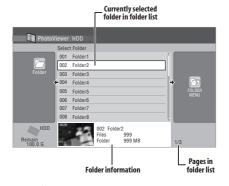
The first image from the selected folder is displayed as thumbnail at the bottom of the screen. From the Folder Information column, you can change thumbnails via the ◀◀/▶▶ buttons.

Locating JPEG picture files

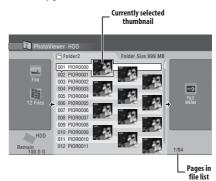
- 1 GOMENNO Select 'PhotoViewer' from the Home Menu.
- 2 Select the location of the files you want to view or edit.



- View/Edit Photos on the HDD View or edit photos already stored on the recorder's HDD.
- View Photos on a CD/DVD View photos on a Fujicolor CD, CD-ROM, CD-R/-RW, or DVD-R/-RW.
- View Photos on a USB Device View photos on a digital camera (or other USB device) connected to the USB port.
- Copy Files from a Digital Camera Copy all DCF files directly from a connected digital camera to a recordable DVD-R/-RW.
- 3 Select the folder containing the files you want to view, copy or edit.



4 Select the file you want to view, copy or edit.



- The larger the file size, the longer it takes the recorder to load the file.
- You can change folders via the ◄◄/▶► buttons.

Note

¹ Up to 999 files or 99 folders are viewable, but if there are more files/folders than this on the disc or connected USB camera it is still possible to view them all using the Reload function (see *Reloading files from a disc or USB device* on page 94).

- If you encounter a disc that will not play, check that the disc and file formats are compatible with this recorder (see JPEG file compatibility and PC-created disc compatibility on page 11).
- The thumbnail of files that cannot be played is displayed as the \(\hat{\Lambda}\) logo.

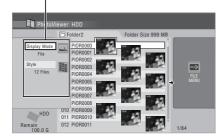
Changing the display style of the PhotoViewer

You can choose to display photos by grouping them by folder, file, or number of thumbnails.



Display the View Options

The View Options panel



2 Choose 'Display Mode' or 'Style' then press ENTER to see the available view options.

- **Display Mode** Choose between folder and file display modes.
- **Style** Choose between displays of 1, 4 and 12 thumbnails.

Choose a view option, then press ENTER.

The display mode will change to that which you have chosen.

Playing a slideshow



Select a folder from the folder

list.

2

To start the slideshow from the first file in the folder, skip to step **3** after choosing the desired folder and pressing **→**.



Select a thumbnail.

 Use I◄◄ PREV and ►►I NEXT to display the previous/next page of thumbnails.

3 Select 'Start Slideshow' or 'Start Audio Slideshow' from the menu.

When you select 'Start Audio Slideshow', you are prompted to select the Genre of music you would like to hear, and when you press **ENTER**, music of that Genre stored on the Jukebox will be played during the slideshow.

For more information on adding music to the HDD, see *Using the Jukebox* on page 87.

- You can also select a file or folder then press > PLAY to start playing the slideshow.
- Use I◄◄ PREV/▶►I NEXT to display the previous/next picture, or II PAUSE to pause the slideshow.
- Depending on the aspect ratio, some pictures may be displayed with black bars top and bottom, or left and right.
- Large picture files may take a few seconds to display. This is normal.



Press to return to the thumbnail.

- You can also use the **RETURN/EXIT** button.
- 5 HOMEMENU Press to exit the PhotoViewer.

Zooming an image

During a slideshow you can zoom in to enlarge a portion of the picture by a factor of two or four. You can also move the area of the picture displayed.

Press during the slideshow to zoom the picture.

Repeated presses cycle between zoom off, 2x zoom and 4x zoom. The zoom factor is displayed on-screen.



Use to move the zoomed

Rotating an image

You can rotate the displayed picture during a slideshow so you can always view pictures the right way up, whichever way they were taken.

Press during the slideshow to rotate the displayed picture clockwise by 90°.

Press repeatedly to continue rotating the picture in increments of 90°.

Reloading files from a disc or **USB** device

If you have a disc with more than 1000 files and/or 100 folders, you can still view all the images using the reload function.

- Navigate to the last entry in the folder list ('Read next: ...').
- 2 Load the next batch of up to 999 files/99 folders from the disc or connected USB device.

It will take a moment (at most a few minutes) to load in the images.1

Importing files to the HDD

You can import files and save them to the HDD² from a CD, DVD or a connected USB camera. Once on the HDD you can edit and organize your pictures and print them out if you've connected a PictBridge-compatible printer.



Select the location of folders/ files you want to import.

To import a whole folder, select the desired folder, press →, and skip to step 3 below.

• To import multiple folders, use the Multi-Mode: see Selecting multiple files or folders on page 95.



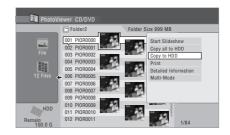
Select a file to import, then press ⇒.

 To import multiple files, use the Multi-Mode: see Selecting multiple files or folders on page 95.



3

Select 'Copy to HDD' from the



Select 'Yes' to confirm and copy the folder(s)/file(s), or 'No' to cancel.

 The files will be copied to the HDD with the same folder structure as the original.



- 1 You can press **HOME MENU** to exit the PhotoViewer screen while the recorder is reloading images. (If you enter the PhotoViewer again, it will resume reloading.)
- 2 For files you want to keep permanently, we recommend backing up to DVD-R/-RW.

 Importing to the HDD will not work if there is insufficient space on the HDD, or if there are already the maximum number of files and/or folders on the HDD (999 folders/999 files per folder).

Selecting multiple files or folders

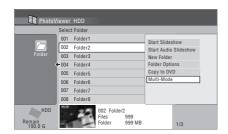
The Multi-Mode allows you to select multiple folders/files at once for importing or editing.

1 Select the folder containing the files you want to import.



Display the command menu.

3 Select 'Multi-Mode' from the menu.

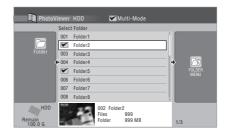


· (((()))

Select files/folders from the

list.

An orange check mark box (**Z**) is shown by the item you selected. A blue check mark box (**Z**) appears on the folder select screen when files from that folder are selected.





Display the command menu.

6 Select the command you want to apply to all the selected items.

Copying files to a DVD-R/-RW

Using this feature you can copy all the files¹ (including audio and movie files) stored on a connected USB camera to a recordable DVD disc.

A slideshow of the files is also recorded on the disc as a Video mode title, making it possible to view the photos on other DVD players/recorders that may not be compatible with JPEG file playback.

Once the files have been copied, the disc is automatically finalized.

- 1 There is a limit to the number of files/amount of data that you can copy at one time.
 - Only DCF format files in DCIM folders can be copied to a recordable DVD-R/-RW.



Important

- Use a blank DVD-R/-RW disc, or one that has already been initialized for Video mode recording but has nothing yet recorded on it. Discs that have already been recorded on (as well as CD-R/-RW discs) cannot be used.
- After backing up the pictures in your digital camera to DVD, we recommend verifying that they have been recorded properly before deleting anything from the camera.
- Press HOME MENU and select 'PhotoViewer' to display the PhotoViewer screen.
- Load a blank (or unrecorded Video mode) DVD-R or DVD-RW disc.
- Select 'Copy Files from a Digital Camera' from the menu.





Select 'Yes' to confirm or 'No'

 Note that during copying, any timer programmes set to start will not begin. and no other operations are possible.

Copying selected files to a DVD-R/-RW

This feature allows you just to copy some of the files stored on HDD to a DVD.

A slideshow of the files is also recorded on the disc as a Video mode title, making it possible to view the photos on other DVD players/recorders that may not be compatible with JPEG file playback. Note

however that you may need to finalize the disc before it will play on another DVD player (copying selected files doesn't automatically finalize the disc).



Important

- A maximum of 99 slideshow titles can be recorded.
- One slideshow title can contain up to 99 files. If there are more files than this in the slideshow, multiple slideshows are created on the disc.
- If you erase a slideshow title from a DVD the slideshow will become unplayable but the free space will not increase.
- Load a blank (or unfinalized Video mode) DVD-R or DVD-RW disc.



Select 'View/Edit Photos on the HDD' from the menu.



Select the file(s) or folder(s) you want to copy.

- Copying a folder will copy all the files contained in it.
- To copy multiple folders, use the Multi-Mode; see Selecting multiple files or folders on page 95.



Select 'Copy to DVD' from the



Select 'Yes' to confirm or 'No' to cancel.

- Folder names on the disc will be number PIONR. File names will be PHOT number.
- Note that during copying, any timer programmes set to start will not begin, and no other operation is possible.
- While 'Cancel' is displayed, you can press ENTER to cancel.

Editing files on the HDD

There are a number of commands you can use to edit and organize your pictures stored on the HDD.

Creating a new folder

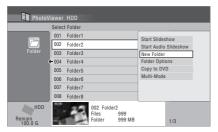


From the folder list, display the menu.



Select 'New Folder'.

The folder appears at the bottom of the folder list with the name F_number.



• There can be up to 999 folders on the HDD

Erasing a file or folder



Select the file(s) or folder(s) you want to erase.

- To erase multiple files or folders, use the Multi-Mode; see Selecting multiple files or folders on page 95.
- Erasing a folder will erase all the files contained in it. Please be careful!
- You can't erase files that have been locked.
- Folders containing locked files can't be erased. Unlocked files in the folder. however, will be erased.

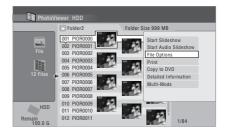


2

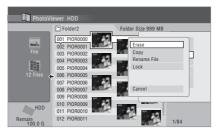
Display the command menu.



3 Select 'File Options' or 'Folder Options'.



Select 'Erase' or 'Erase Folder'.



5 Select 'Yes' to confirm, or 'No' to cancel.

 You can also erase a file or folder by pressing **CLEAR** when the file or folder is highlighted. Press **ENTER** to confirm.

Copying files



Select the file(s) or folder(s) you want to copy.

- Copying a folder will copy all the files contained in it.
- To copy multiple files or folders, use the Multi-Mode; see Selecting multiple files or folders on page 95.



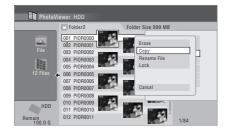
Display the command menu.



Select 'File Options' or 'Folder

4 Contents'.

Select 'Copy' or 'Copy Folder



5 Select a folder to copy the folder(s)/file(s) to.



Select 'Yes' to confirm, or 'No'

Copying to the HDD will not work if there
is insufficient space on the HDD; if there
are already the maximum number of
files and/or folders on the HDD.

Naming files and folders

1 Select

Select the file or folder you

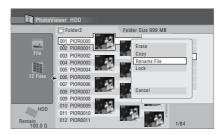
You can't rename files that have been locked.



Display the command menu.

3 Select 'File Options' or 'Folder Options'.

4 Select 'Rename File' or 'Rename Folder'.



5 Enter a new name for the file/folder. File names or Folder names can be up to 64 characters long.

See Using the remote key shortcuts to input a name and Using a USB keyboard to enter a name on page 71 for how to enter a name.

Locking/Unlocking files

Locking files will protect them from accidental erasure and prevent them from being renamed.

Use the same process to both lock and unlock files. Locked files are displayed in the PhotoViewer with a padlock icon.



1 Select the file(s) you want to lock (or unlock).

• To lock/unlock multiple files or folders, use the Multi-Mode; see *Selecting multiple files or folders* on page 95.



Display the command menu.



2

Select 'File Options' or 'Folder' ns'.



Select 'Lock' or 'Lock Folder Contents'.



Locked files are shown with a padlock icon next to them. To remove all locks within a given folder, choose 'Folder Option' > 'Unlock Folder Contents'.

To view detailed information

This feature allows you to check the settings of the camera from which you imported the photos.

- Choose the file for which you would like to see detailed information.
- Choose 'Detailed Information'.

When no detailed information is available. nothing is displayed.

Printing files

Connecting a PictBridge-compatible printer to the USB port will enable you to print out picture files¹ stored on the HDD, a CD/DVD, or directly from a digital camera.

Make sure that the printer (and your digital camera if you are using that as a source) is connected to the recorder before starting.



Select the file(s) you want to

print.

 To print multiple files, use the Multi-Mode: see Selecting multiple files or folders on page 95.

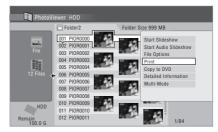


Display the command menu.



2

Select 'Print' from the menu.





Select 'Start' to confirm, or 'Cancel' to cancel.

· Once printing has started, you can cancel by pressing ENTER.



- Paper size and layout can be set; the options available depend on your printer — check the printer manual for details.
- This recorder may not work correctly with all printers.

Chapter 13

The Disc Setup menu

From the Disc Setup menu you can name discs, lock the contents to prevent accidental recording and erasure, initialize and finalize discs. The Disc Setup menu is accessed from the Home menu.

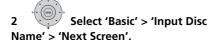
Basic settings

Input Disc Name

 $\begin{picture}(100,0) \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){1$

When you initialize a disc for recording, the recorder automatically assigns a name for the disc ranging from **DISC 1** to **DISC 99**. You can use the Input Disc Name function to change the default disc name to something more descriptive. This name appears when you load the disc and when you display disc information on-screen.

1 ROMEMBRID Select 'Disc Setup' from the Home Menu.







Input a name for the disc.

The disc name can be up to 64 characters long for a VR mode disc, or 40 for a Video mode discs and DVD+R/+RW.

 See Title Name on page 70 for more on navigating the input screen.

Lock Disc

DVD (VR) DVD-RAM

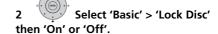
· Default setting: Off

Locking the disc will prevent accidental recording, editing or erasing of the disc.



Important

- A locked disc can still be initialized (which will completely erase the disc).
- 1 BOMEMBRO Select 'Disc Setup' from the Home Menu.





Set to **On** to prevent accidental recording, editing or erasing of the disc loaded. If you need to unlock the disc to make edits, select **Off**.

DVD-RW Auto Initialize

DVD-RW

• Default setting: VR Mode

Initialization mode is automatically carried out when you insert a blank DVD-RW. You must set the desired initialization mode before inserting a disc.

See *DVD-RW Auto Initialize* on page 52 for detailed instructions.

The Disc Setup menu

Initialize settings

DVD-R DVD-RW DVD+RW DVD-RAM

You can initialize a recordable DVD-R/-RW disc for either VR mode or Video mode recording.

The first time you load a new DVD-RW disc, it will be automatically initialized for recording according to the DVD-RW Auto Init. setting in the Disc Setup menu (see page 52).

New DVD-R discs are ready for Video mode recording when you load them, but it is also possible to initialize them for VR mode recording.¹

DVD+RW and DVD-RAM discs can also be initialized as a way of erasing the entire disc. When initializing a DVD-RAM disc, select VR mode.

See *Initializing recordable DVD discs* on page 51 for detailed instructions.

Finalize settings

Finalize

DVD-R DVD-RW DVD+R DVD+RW

Finalizing 'fixes' the recordings in place so that the disc can be played on a regular DVD player or computer equipped with a suitable DVD-ROM drive.

It is also possible to finalize DVD+RW discs. This is only necessary if you want to a player to display a title menu for the disc.

See *Playing your recordings on other DVD players* on page 50 for detailed instructions.

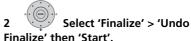
Undo Finalize

DVD-RW

You can undo the finalization on DVD-RW discs recorded on this recorder in Video mode. You need to do this if you want to record more material or edit material already on the disc.

You can also undo the finalization of VR mode discs which have been finalized on other DVD recorders. If when you load a disc the message **This disc cannot be recorded. Undo the finalization.** is displayed, use this command to be able to record on the disc using this recorder.

1 GOMENHOU Select 'Disc Setup' from the Home Menu.



Optimize HDD

HDD

As you record, erase and edit recordings, the HDD file system gradually becomes fragmented. Periodically, the HDD will need optimizing to 'clean up' all the fragmented files.

When the HDD needs optimizing the recorder will automatically display a message recommending optimization.



Important

- Optimizing the HDD can take as long as eight hours. During optimization, playback and recording are not possible.
- Cancelling optimization mid-way does not undo the optimization already done, so the HDD will be partly optimized.

Note

The Disc Setup menu

1 Select 'Disc Setup' from the Home Menu.



Select 'Optimize HDD' then



A progress bar indicates how long there is left to go. If no actions are carried out for more than 20 minutes after the optimization process is completed, the unit turns itself off.

Initialize HDD



When your HDD/DVD recorder is working without a problem this option is not visible in the Disc Setup menu. However, if the HDD file system becomes corrupted for some reason, you can initialize the HDD to fix the problem. Note that initializing the HDD will erase all the data on it.

1 ROMEMBRID Select 'Disc Setup' from the Home Menu.





Chapter 14

The Video Adjust menu

Using the Video Adjust menu you can set up the picture quality for the built-in tuner and external inputs, for disc playback, and for recording.

Setting the picture quality for TV and external inputs

Picture Creation lets you choose a set of picture quality settings for the built-in TV tuner¹ and for each external input. There are several preset settings that suit various sources, or you can create up to three of your own sets.

Choosing a preset

- 1 With the recorder stopped, press to display the Home Menu.
- 2

Select 'Video Adjust'.



Select a preset.



- Use the **INPUT SELECT** button to switch between the built-in TV tuner and the external inputs.
- Use the Smart Jog to change the channel of the built-in TV tuner.

There are six presets available:

- Tuner suitable for general TV broadcasts
- VCR suitable for video cassettes
- DTV/LDP suitable for digital broadcasts and Laserdiscs

- Memory1 user preset 1
- Memory2 user preset 2
- Memory3 user preset 3

You can press **DISPLAY** to see the individual settings for the current preset (**Tuner**, **VCR** or **DTV/LDP**).

Creating your own set

There are three user presets in which you can save your own set of picture quality settings.

1 Follow Choosing a preset above and select one of the user presets (Memory 1, 2 or 3).

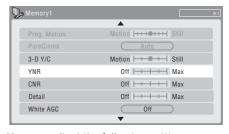


Select 'Detailed Settings'.





Select the setting you want to



You can adjust the following settings:

 Prog. Motion – Adjusts the motion and still picture quality when video output is set to progressive.

Note

The Video Adjust menu

- PureCinema This setting optimizes the picture for film material when the video output is set to progressive. Usually set to Auto; but try switching to Off if the picture appears unnatural.
- **3-D Y/C** Adjusts the brightness/colour separation.
- YNR Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.
- CNR Adjusts the amount of noise reduction (NR) applied to the C (colour) component.
- Detail Adjusts how sharp edges appear.
- White AGC Turn on for automatic white level adjustment.
- White Level Adjusts the intensity of white.
- Black Level Adjusts the intensity of black.
- Black Setup Corrects the standard reference black level (525 Input Line System only).
- **Hue** Adjusts overall balance between red and green.
- **Chroma Level** Adjusts how rich the colours appear.



Adjust the currently selected

5 HOME MENU Press to exit.

You can now use the preset for any other input or the built-in TV tuner.



Tip

 To see more of the picture as you adjust different settings, press ENTER after selecting the setting you want to adjust.

Setting the picture quality for disc playback

This setting determines how the picture will look when playing discs.

Choosing a preset

1 With a disc playing (or paused), press to display the Home Menu.



Select 'Video Adjust'.



Select a setting.



There are six presets available:

- TV suitable for LCD and cathode-ray tube TVs
- PDP suitable for plasma display screens
- **Professional** suitable for professional monitors
- Memory1 user preset 1
- Memory2 user preset 2
- Memory3 user preset 3

You can press **DISPLAY** to see the individual settings for the current preset (**TV**, **PDP** or **Professional**).

Creating your own set

There are three user presets in which you can save your own set of picture quality settings for disc playback.

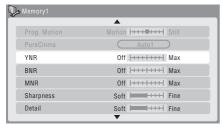
1 Follow Choosing a preset above and select one of the user presets (Memory 1, 2 or 3).

The Video Adjust menu

2 Move the cursor down and select 'Detailed Settings'.



3 Select the picture quality setting you want to adjust.



You can adjust the following settings:

- **Prog. Motion** Adjusts the motion and still picture quality when video output is set to progressive. (Prog. Motion is ineffective when PureCinema is On.)
- PureCinema This setting optimizes the picture for film material when the video output is set to progressive. Usually set to Auto 1 but try switching to Auto 2, On or Off if the picture appears unnatural.
- YNR Adjusts the amount of noise reduction (NR) applied to the Y (brightness) component.
- BNR Adjusts the amount of noise reduction (NR) applied to the block noise (artefacts visible in areas of flat colour, caused by MPEG compression).
- MNR Adjusts the amount of noise reduction (NR) applied to the mosquito noise (artefacts visible around the edges of an image, caused by MPEG compression).
- Sharpness Adjusts the sharpness of the high-frequency (detailed) elements in the picture. Sharpness is ineffective for HDMI output.
- Detail Adjusts how sharp edges appear.

- White Level Adjusts the intensity of white. White Level is ineffective for HDMI output.
- Black Level Adjusts the intensity of black. Black Level is ineffective for HDMI output.
- Black Setup Corrects the standard reference black level. Black Setup is ineffective for HDMI output.
- Gamma Correction Adjusts the brightness of darker images. Gamma Correction is ineffective for HDMI output.
- Hue Adjusts overall balance between red and green. Hue is ineffective for HDMI output.
- Chroma Level Adjusts how rich the colours appear. Chroma Level is ineffective for HDMI output.
- 4 Use the ←/→ buttons to adjust the currently selected picture quality setting.
- 5 When you have all the settings as you want them, press HOME MENU to exit.



 To see more of the picture as you adjust different settings, press ENTER after selecting the setting you want to adjust.

The Initial Setup menu

Chapter 15 The Initial Setup menu

Using the Initial Setup menu

The Initial Setup menu is where you can set various recorder options for sound, picture, language and so on.

Some settings can only be changed when the recorder is stopped. During playback and recording these settings are grayed out in the Initial Setup menu.

Except for the Setup Navigator, menu screens are exited automatically after 20 minutes of inactivity.

Press HOME MENU and select 'Initial Setup'.

In the table below, the default option is marked with a •.

Setting	Options	Explanation
Basic		
Clock Setting	Auto	Set the channel that broadcasts a clock signal and the clock will be set automatically.
	Manual •	If there is no channel that broadcasts a clock signal in your area, you can set the time and date manually.
 If any digital TV channe The clock must be set		ck will automatically be set. ecording.
Input Line System	525 System	Use for NTSC or PAL-60 recording from an external input.
	625 System •	Use for standard PAL or SECAM recording.
• This setting is applicate • See also About the inp		g from an external input. e 119 for more information on this setting.
Power Save	Mode 1	Only signals arriving at the antenna input are passed through to the antenna output when the recorder is in standby.
	Mode 2	No input signals are passed through to the outputs when the recorder is in standby.
	Off •	When the recorder is in standby, all signals arriving at the SCART and antenna inputs are passed along to the outputs.
HELP Setting	On •	Switches on the automatic Help screens for GUI displays.
	Off	Switches off the automatic Help screens for GUI displays. (Press HELP on the remote to manually display the Help screen.)

The Initial Setup menu

Setting	Options	Explanation
Setup Navigator	Start	Select to start the Setup Navigator. See also Switching on and setting up on page 28.
Digital Tuner		
Replace Channels	Next Screen	Scans for digital channels and replaces all the channel presets with the results. Before the scan starts you will need to select your area. After the scan is complete the recorder tells you whether any new channels were found, and if so, how many. (You can cancel the scan before it has finished by pressing HOME MENU or RETURN/EXIT. In this case, no channels are set.)
If you execute a Replace (Channels command, a	any timer recordings set for D.TV channels will be erased.
Add New Channels	Next Screen	Automatically scans for new digital channels. After the scan is complete the recorder tells you whether any new channels were found, and if so, how many. (You can cancel the scan before it has finished by pressing HOME MENU or RETURN/EXIT . In this case, no new channels are set.)
Channel Sort	Next Screen	Use this screen to sort channel presets into your prefered order. Use the ↑/↓/←/→ buttons to highlight the channel you want to move, press ENTER. Use the cursor buttons again to highlight the position you want to move the channel preset to, then press ENTER again. (If there are more channel presets than will fit on one screen, you can select the next/previous page by highlighting the small triangular marks and pressing ENTER.)
Channel Options	Next Screen	From this screen you can skip or lock channels. Locked channels will require the correct password to be entered before the channel can be watched. Use the 1/1/←/→ buttons to highlight a preference box and press ENTER to toggle the preference. To enter this screen, input the parental lock password when prompted (if one has not yet been set then the password).

The Initial Setup menu

Setting	Options	Explanation
Auto Skip	Off •	No channels are automatically skipped.
	Radio	Radio channels are skipped when selecting channels.
	Data	Data channels are skipped when selecting channels.
	Radio & Data	Radio and data channels are skipped when selecting channels.
Signal Check	Next Screen	Use this screen to check the signal level and quality of digital channels. Use the ←/→ buttons to change the RF channel; select Add New Channels then press ENTER to scan for new channels; press HOME MENU to exit.
Aerial Power	On	Power is supplied to the connected aerial (antenna) when this recorder is on or in standby.
	Auto	Power is supplied to the connected aerial (antenna) only when this recorder is on.
	Off •	This recorder does not supply power to the connected aerial (antenna).

[•] If the setting keeps reverting to **Off** when you try to set to **On** or **Auto**, the aerial may not be connected properly, or it may be shorted. In either case, check the connection and try making the setting again.

Analog Tuner		
Auto Channel Setting	Auto Scan	Select your country and then wait for the recorder to auto tune into channels in your area. After auto scan has finished, the channel mapping screen appears showing which channels have been assigned to which programme numbers. You can skip unwanted channels using the Manual CH Setting option below. Press HOME MENU to exit the channel mapping screen.
	Download from TV	If your TV supports this feature you can download all the channels that your TV is tuned to via the SCART input. Select your country and then wait for the download to complete. After the download is complete, the channel mapping screen appears, as above. See also the operating instructions that came with your TV for more information.

Setting	Options	Explanation
Manual CH Setting	Next Screen	Proceed to the next screen if you need to adjust any of the settings made by auto tuning. Select your country, then proceed to the manual channel setting screen: • Change channel presets using the Smart Jog . • To skip the displayed channel (because there is no station assigned to that channel), change the Skip setting to On . • Set the CH SYSTEM setting to match the channel system of your country or region. • Set the CHANNEL setting to the channel you want to assign to the current channel preset. • To manually fine tune the channel, change the AFT setting to Off then adjust the Level setting. • Set the Sound System setting to match the sound system of your region. • The Name field allows you to input a name of up to five characters for the current channel preset.
Channel Swapping	Next Screen	Proceed to the next screen to swap channel assignments of different presets so that you can group together presets that naturally go together. Select two presets to swap then press ENTER.
G-Code CH Setting	Next Screen	Proceed to the next screen to assign channel numbers to the guide channels as necessary. Look in your TV guide to see which channel numbers should be assigned to which guide channels. Press ENTER when your done to leave this screen.
Video In/Out		
Input Colour System	Next Screen	Proceed to the next screen to set the input colour system for the external input and the built-in TV tuner. Use the Smart Jog or INPUT SELECT buttons to change the preset or external input. On the default Auto setting the recorder can generally correctly detect whether the input signal is PAL, SECAM, 3.58 NTSC or PAL-60, but in some cases you may have to set it manually if the picture is displayed incorrectly.

- Input Colour System cannot be set when the recorder is in D.TV mode.
- See also About the input colour system on page 119 for more information on this setting.

Setting	Options	Explanation
Component Video Out	Interlace •	Select if your monitor/TV is not compatible with progressive-scan video.
	Progressive	Select if your monitor/TV is progressive-scan compatible. Check the operating instructions that came with your monitor/TV if you're not sure.

- For Component Video Out to be effective, the AV1 Out setting (see below) must be set to something other than **RGB**.
- If your TV is incompatible with progressive scan video and you select **Progressive**, you will not be able to see any picture at all. In this case, press **DPEN/CLOSE** while holding down the **(**Stop) button on the front panel to switch to **Interlace** (this also switches Screen Resolution on page 116 to the default setting).
- When the HDMI signal is output, no video is output from the **COMPONENT VIDEO OUT**.

AV1 Out	Video •	Sets the AV1 (RGB)-TV SCART output to standard composite video (compatible with all TVs).
	S-Video	Sets the AV1 (RGB)-TV SCART output to S-video. Recommended if you are using a long SCART cable.
	RGB	Sets the AV1 (RGB)-TV SCART output to RGB. Good quality but check your TV for compatibility. Note that on this setting signals from the built-in tuner and from external inputs is not output when the recorder is in TV mode.

- If you choose a setting that is incompatible with your TV you may not be able to see any picture at all. In this case either switch off and reconnect using the supplied video cable, or reset the recorder (see Resetting the recorder on page 136).
- The Component Video Out setting (see above) has no effect when AV1 Out is set to RGB.
- When the HDMI signal is output, the AV1 Out outputs the composite video signal even when it is set to RGB.

AV2/L1 In	Video •	Sets the AV2 (INPUT 1) SCART input to standard composite video.
	S-Video	Sets the AV2 (INPUT 1) SCART input to S-video.
	RGB	Sets the AV2 (INPUT 1) SCART input to RGB.
NTSC on PAL TV	On •	NTSC discs will play correctly on PAL-only TVs.
	Off	Use if your TV is already NTSC-compatible.

Many recent PAL TVs are compatible with NTSC input and so this setting can be switched off. Check the operating instructions that came with your TV. See also About NTSC on PAL TV on page 119 for related information.

Audio In		
NICAM Select	NICAM •	Record the NICAM audio in a NICAM broadcast.
	Regular Audio	Record the non-NICAM audio in a NICAM broadcast. (You can still switch the audio to record using the AUDIO button before recording.)
Analog Tuner Level	Normal •	Standard setting.
	Compression	Use if the audio level from the built-in tuner is excessive, causing distortion.

Options

Setting

External Audio	Stereo •	Select if the audio from the currently selected external input is standard stereo.
	Bilingual	Select if each channel carries a separate soundtrack.
		audio subcode channel within the DV audio tells the recorder priority over the setting you make here.
Bilingual Recording	j A/L•	Record the left (A) channel of a bilingual source when recording to HDD with HDD Recording Format set to Video Mode On, to DVD-R/-RW (Video mode) or DVD+R/+RW or in LPCM mode, from an external source.
	B/R	As above, but for right (B) channel recording.
		e (except in LPCM mode), or to HDD with HDD Recording Format h audio channels are recorded and you can switch to the one you
DV Input	Stereo 1 •	Select to use the 'live' audio track (recorded during the video shoot) from a camcorder that supports two stereo audio tracks.
	Stereo 2	Select to use the overdubbed audio track from a camcorder that supports two stereo audio tracks.
	Mix	Select one of the three settings to use a mix of the two stereo audio tracks.
Audio Out		
Dolby Digital Out	Dolby Digital •	Output a Dolby Digital signal when a Dolby Digital source is being played.
	Dolby Digital → PCM	Convert Dolby Digital sources to Linear PCM output. Use if your connected equipment doesn't have a Dolby Digital decoder.
DTS Out	On •	Output a DTS signal when a DTS source is being played.
	Off	Switch off the digital output when a DTS source is being played. Use when your connected equipment doesn't have a DTS decoder. In this case, use the analog audio outputs.
96 kHz PCM Out	96 kHz → 48 kHz (• Convert 96 kHz digital audio sources to 48 kHz output. Use if your connected equipment doesn't support 96 kHz sampling rate.
	96 kHz	Output 96 kHz digital audio when a 96 kHz source is being played.

Explanation

Setting	Options	Explanation
MPEG Out	MPEG	Output an MPEG audio signal when a source using MPEG audio is being played.
	MPEG → PCM •	Convert sources with MPEG audio to Linear PCM output. Use if your connected equipment doesn't have an MPEG audio decoder.
Audio DRC	On	Switches on Audio DRC (Dynamic Range Control). Use when listening to Dolby Digital material at low volume.
	Off •	Switches off Audio DRC.
Audio DRC is not effective Digital.	ve when listening via the o	ligital output when the Dolby Digital Out setting is set to Dolby
Language		
OSD Language	English •	Sets the language of the on-screen displays to English.
	available languages	Choose from the languages displayed for the onscreen displays.
Audio Language	English •	Sets the default audio language for DVD-Video playback to English.
	available languages	Choose from the languages displayed to set the default audio language for DVD-Video playback.
	Other	Select to set the default audio language to something other than the ones listed. See Selecting other languages for language options on page 120.
Discs do not necessarily preference.	have audio in your select	ed language. Also, some discs override the Audio Language
Subtitle Language	English •	Sets the default subtitle language for DVD-Video playback to English.
	available languages	Choose from the languages displayed to set the default subtitle language for DVD-Video playback.
	Other	Select to set the default subtitle language to something other than the ones listed. See Selecting other languages for language options on page 120.

Discs do not necessarily have subtitles in your selected menu language. Also, some discs override the Subtitle Language preference.

Setting	Options	Explanation
Auto Language	On •	On this setting: • DVD-Video discs whose main audio track is in your default language will play using that language, without subtitles. • Discs whose main audio track is not in your default language but that have a subtitle track in your default language will play the original audio track with subtitles.
	Off	Select to play DVD-Video discs according to your audio and subtitle language preferences.
For Auto Language to be language.	effective, the Audio Langu	uage and Subtitle Language options must be set to the same
DVD Menu Language	w/Subtitle Language •	Sets the language of DVD-Video menus to the same as that set for the subtitle language.
	English	Sets the language of DVD-Video menus to English.
	available languages	Choose from the displayed languages to set the default language for DVD-Video menus.
	Other	Select to set the DVD menu language to something other than the ones listed. See Selecting other languages for language options on page 120.
Discs do not necessarily	have menus in your selec	cted menu language.
Subtitle Display	On •	Select to have discs display subtitles according to your Subtitle Language and Auto Language preferences.
	Off	Select to switch off subtitle display.
	Assist Subtitle	Select to display special additional assistive subtitles, where available.
Some discs may override	these settings.	
Recording		
Manual Recording	On (go to setup)	All the standard recording modes, plus MN1 to MN32 , LPCM and XP+ modes can be set.
	Off •	Just the standard recording modes (XP, SP, LP, EP, SLP and SEP) can be set.
See also Manual recording	ng modes on page 123 for	detailed information on manual recording levels.

Setting	Options	Explanation
Optimized Rec	On	The recording quality of timer recordings is automatically adjusted to fit on to the selected media if it will not fit at the selected quality setting. If the recording will not fit even at MN1(MN4 for DVD+R/+RW), then the recording will be made to the HDD in the original quality selected.
	Off •	When a timer recording is set that won't fit on to the selected media, the recording starts but is cut off when no more recording is possible.
Optimized Rec will only c	ompensate for the next	scheduled timer recording if more than one is set.
Subtitle Recording	On	The selected subtitle language is recorded with the D.TV timer recording.
	Off •	No subtitles are recorded with D.TV timer recordings.
Set Thumbnail	0 seconds •	Sets the default thumbnail picture in the Disc Navigator to the first frame of the title.
	30 seconds	Sets the default thumbnail picture to 30 seconds into the title.
	3 minutes	Sets the default thumbnail picture to three minutes into the title.
Auto Chapter (HDD/VR)	On •	When recording to the HDD or in VR mode to a DVD, chapter marks are added at the black screen between commercials and main programming. When recording in DV, chapter marks can be changed by date/time.
	Off	Automatic chapter marking is switched off.
Auto Chapter	No Separation	Automatic chapter marking is switched off.
(Video)	10 minutes •	When recording in Video mode, chapter markers are inserted every 10 minutes.
	15 minutes	Chapter markers are inserted every 15 minutes.
This settings applies to re	ecording or real-time co	pying to Video mode DVD-R/-RW discs.
Auto Chapter	No Separation	Automatic chapter marking is switched off.
(DVD+R/+RW)	10 minutes •	When recording in DVD+R/+RW, chapter markers are inserted every 10 minutes.
	15 minutes	Chapter markers are inserted every 15 minutes.
This settings applies to re	ecording or real-time co	pying to DVD+R/+RW discs.

Setting	Options	Explanation
HDD Recording Format	Video Mode Off	Recordings made to the HDD are made in VR mode. Use this setting if you don't need to transfer the recording later to a DVD-R/-RW (Video mode) or DVD+R/+RW.
	Video Mode On •	Recordings made to the HDD are compatible with Video mode recordings. This setting is convenient if you want to transfer the recording to a DVD-R/-RW (Video mode) or DVD+R/+RW as high-speed copy can be used.

[•] When Video Mode On is used, you must select the audio channel you want to record when recording a bilingual broadcast. On the Video Mode Off setting, both channels will be recorded and you can switch between them on playback. See also Bilingual Recording on page 111.

[•] When the recording mode is set to XP+, you cannot change HDD Recording Format.

Playback		
TV Screen Size	4:3 (Letter Box)	Select if you have a standard 4:3 TV and prefer the letter box format presentation for widescreen material.
	4:3 (Pan & Scan)	Select if you have a standard 4:3 TV and prefer the pan and scan presentation for widescreen material.
	16:9 •	Select if you have a widescreen 16:9 TV. Your TV settings determine how 4:3 material will look.
Selecting 4:3 (Letter Box format as some discs over		oes not guarantee that all video material will be presented in that
Still Picture	Field	Produces a stable, generally shake-free image.
	Frame	Produces sharp image, but may be prone to shake.
	Auto •	Generates a generally less sharp but more stable still image.
Seamless Playback	On	Playback is smooth, but with a trade-off against the accuracy of the edit points.
	Off •	You may notice momentary interruption at edited points during playback of a VR mode Play List.
This setting applies to Hi	DD, DVD-R/-RW (VR) and	DVD-RAM playback.
Angle Indicator	On •	A camera icon appears on-screen during multi-angle scenes on a DVD-Video disc.
	Off	Nothing is indicated on-screen when a multi-angle scene is showing.
Parental Lock		
Set Password / Change Password	Next Screen	If no password has yet been set, enter a four digit number to become your password. If you want to change the password, first enter your old password, then enter a new one.

Setting	Options	Explanation
DVD Playback	Next Screen	From this screen, first enter your password and then set a parental lock level for playback of DVDs with parental level coding.
D.TV Parental Lock	Next Screen	Set the block level of D.TV programmes. If the block level set for each programme is higher than the level set here, you need to enter a password.
HDMI Output (only a	available when an H	DMI device is connected)
Screen Resolution	1920 x 1080p	Constant 1920 x 1080p output.
	1920 x 1080i	Constant 1920 x 1080i output.
	1280 x 720p	Constant 1280 x 720p output.
	720 x 576p (720 x 480p)	Constant 720 \times 576p output (when setting the Input Line System to 525 System , video is output in 720 \times 480p).
	720 x 576i (720 x 480i)	Constant 720 x 576i output (when setting the Input Line System to 525 System , video is output in 720 x 480i).
case, press △ OPEN/CLC also switches Component	OSE while holding dow at Video Out on page 1	with your TV you may not be able to see any picture at all. In this yn the ■ (Stop) button on the front panel to switch the setting (this 10 to the default setting).
4:3 Video Output	Full	Select if your HDMI TV allows you to change the aspect ratio.
	Normal	Select if your HDMI TV does not allow you to change the aspect ratio. 4:3 video will be shown with bars on each side.
Colour	RGB (0-255)	Use if colours are weak and black appears to 'float' on the RGB (16–235) setting.

Use this setting if colours appear overly rich and the

The video signal is output as a 10-bit YCbCr 4:2:2 component signal. This is the standard setting for

The video signal is output as a 8-bit YCbCr 4:4:4

black too deep on the RGB (0-255) setting.

HDMI-compatible devices.

component signal.

RGB (16-235)

YCbCr 4:2:2

YCbCr 4:4:4

[•] Depending on the connected device some settings may not be available.

[•] When a DVI device is connected, the YCbCr 4:2:2 and YCbCr 4:4:4 options are not available.

[•] You cannot choose YCbCr 4:2:2 when the Screen Resolution is set to 720 x 576i (720 x 480i).

Options	Explanation
Auto ◆	Dolby Digital, MPEG and DTS sources are output as a bitstream signal. However, depending on the Audio Out setting, number of audio channels, and the HDMI-connected device, Linear PCM audio may be output.
PCM	All audio signals are converted to Linear PCM (except DTS).
Bitstream Priority	Select if the connected device is compatible with bitstream audio.
ilable when a DVI device is c	onnected.
On •	Enable the HDMI Control function. Select this option when connected to an HDMI Control-compatible Pioneer plasma display, AV system (amplifier or AV receiver etc.).
Off	Disable the HDMI Control function. Select this option when not connected to an HDMI Control-compatible component, or when connected to a component manufactured by a company other than Pioneer.
	PCM Bitstream Priority Vable when a DVI device is come.

- For more information about HDMI Control, see HDMI Control on page 20.
- This setting is available even if you are not connected to an HDMI device.

When set to Pass Through, make sure to set Power Save (page 106) to Off.

• For more information see Troubleshooting on page 128.

On •	The recorder displays operation displays (Stop , Play etc.) on-screen.		
Off	Switches off the on-screen operation displays.		
On •	The time is shown in the front panel display when the recorder is in standby.		
Off	The front panel display is switched off in standby.		
Recorder 1–3 (default: Recorder 1)	If you are using more than one recorder in the same room, set them to different IDs. This setting sets the recorder ID; to change the remote controller ID, press and hold RETURN/EXIT then press 1 , 2 or 3 to set. The remote will only control a recorder with the same ID.		
This Recorder Only •	Signals received through the AV input when the recorder is in standby are not passed through to the AV output.		
Pass Through	Signals received when in standby are passed though to the output for connected devices.		
	Off On • Off Recorder 1–3 (default: Recorder 1) This Recorder Only •		

Setting	Options	Explanation
DivX VOD	Registration Code	Use to display the recorder's DivX registration code. See <i>DivX video compatibility</i> on page 10 and <i>DivX</i> ® <i>VOD content</i> on page 11.
Set Preview (HDD only)	Quick Preview •	When in the Disc Navigator, the thumbnail video plays short excerpts from throughout the selected title. (Note that edited titles that will play normally from the beginning.)
	Normal	The thumbnail video plays from the beginning of the title.
Options 2		
USB	Restart USB Device	If the connected USB device does not respond to the recorder, try using this option to restart it. If the device still does not work properly try switching it off then back on, and/or disconnecting then reconnecting the USB cable.
	Confirm Printer	Use this option to confirm the make and model of the printer connected to the recorder (does not work with all printers).
Pause Live TV	TV's Tuner	Allows you to use the Pause Live TV feature with an AV Link-compatible TV connected by SCART cable.
	Recorder's Tuner •	Allows you to use Pause Live TV with this recorder's internal TV tuner.
See also Pause Live TV o	n page 42 for more inform	ation on this setting.
HDD Sleep Mode	Proceed	Puts the HDD to sleep. Using this feature when playing DVDs or CDs allows you to reduce noise produced by the unit, resulting in improved sound quality. When you wake the HDD back up it will take a few seconds to load. The HDD can be taken out of Sleep Mode by any number of actions, including: • Turning the power off and on again. • Pressing the HDD/DVD button and choosing the HDD. • When a timer recording begins. • When you try and make any changes to system settings.

Additional information about the TV system settings

About the input line system

This recorder is compatible with PAL, SECAM, 3.58 NTSC and PAL-60 TV systems. The Input Line System and Input Colour System settings determine how the recorder treats incoming video signals from an external input.

Please note the following points when changing the input line system:

- If, when the Input Line System setting is changed, the screen goes blank (due to incompatibility with your TV), you can switch back by pressing and holding the front panel ■ (Stop) button then pressing INPUT SELECT (also front panel) while the recorder is stopped.
- When you switch the Input Line System setting the Copy List is erased. If you switch the setting using the ■ (Stop) button and INPUT SELECT buttons as described above, there is no confirmation, so please use with care.
- You can't mix recordings of different TV line systems on the same disc.
- When you change this setting, the Input Colour System setting also changes (see below).

About NTSC on PAL TV

Depending on the Input Line System setting and the NTSC on PAL TV setting, the signal format output when the recorder is stopped varies as shown in the table below.

Input Line System	NTSC on PAL TV	Output when stopped
625 System	Off	PAL
	On	PAL
525 System	Off	NTSC
	On	PAL-60

About the input colour system

The available options of the Input Colour System setting depend on the Input Line System setting. The table below shows the different options available.

Input Line System	Built-in analog tuner	External input
625 System	Auto	Auto
	PAL	PAL
	SECAM	SECAM
525 System	n/a	Auto
		3.58 NTSC
		PAL-60

Additional information about component video output

If you switch the Component Video Out setting to **Progressive** when using a TV that is not compatible with progressive-scan video, you will not be able to see anything displayed on your TV. If this happens, press and hold the ■ (Stop) button on the front panel, then press ▲ **OPEN/CLOSE**. This will set the recorder's video output back to Interlace.

Selecting other languages for language options



Select 'Other' from the

language list.

This option appears in the settings for DVD Menu Language, Audio Language, and Subtitle Language.



Select the language you

want.

2



- Select by language name: Use the ←/→ buttons to change the language.
- Select by code number: Press \$\\$\$ then
 use the number buttons to enter the
 four-digit language code.

See *Language code list* on page 133 for a list of available languages and corresponding codes.

Chapter 16

Additional information

Setting up the remote to control your TV

You can use the supplied remote to control your TV. To be able to use this feature you first have to program the remote with a maker code from the table below.

1 Press and hold down the CLEAR button, then enter the maker code for your TV.

See the table on the following page for the list of maker codes. If there is more than one code given for your make, input the first one in the list.

 If the maker's name of your TV doesn't appear in the table below, you will not be able to use this remote to control your TV.

2 Press \circlearrowleft to check that the remote works with your TV.

If the remote is set up correctly, the TV should switch on/off. If it doesn't and there is another code given for your maker, repeat step **1** with a new code.

Using the TV remote control buttons

The table below shows how to use this remote control with your TV.

Button	What it does
Q	Press to switch the TV on/off (standby)
INPUT SELECT	Press to change the TV's video input
VOLUME +/-	Use to adjust the TV volume
CHANNEL +/-	Use to change TV channels

Maker	Code
Alba	66
Bush	76
Fisher	61, 65
Fujitsu	77
Funai	67
Goldstar	79
Grandiente	87
Grundig	51, 82
Hitachi	56, 60, 83, 86
ІП	70
Mitsubishi	59
Nokia	53, 81
Panasonic	58, 72
Philips	57, 85, 89
Pioneer	50, 80
RCA	68
Salora	71
Samsung	73, 75
Sanyo	74
Sei	78
Sharp	52
Sony	54
Tandy	69
Telefunken	64
Thomson	62, 89
Toshiba	55
JVC	63

Minimum copying times

The table below shows the minimum HDD to DVD copying time for one hour of video.

Please note that not all discs are compatible with high-speed copying. 1 Check with the disc manufacturer for compatibility.

		Rec mode					
		SEP	SLP	EP	LP	SP	XP
DVD disc typ	е	10 h	8 h	6 h	4 h	2 h	1 h
DVD-R / 1x DVD-RW / 1x	1x	6 mins.	7.5 mins.	10 mins.	15 mins.	30 mins.	60 mins.
DVD-RW / 2x DVD-R DL DVD-RAM / 2x	2x	3 mins.	4 mins.	5 mins.	7.5 mins.	15 mins.	30 mins.
DVD+R / 2.4x DVD+RW / 2.4x DVD+R DL	2.4x	*1	*1	*1	6.3 mins.	12.5 mins.	25 mins.
DVD-RAM / 3x DVD-RAM / 5x	3x	2 mins.	2.5 mins.	3.5 mins.	5 mins.	10 mins.	20 mins.
DVD-R / 4x DVD-RW / 4x DVD+R / 4x DVD+RW / 4x	4x	1.5 mins.*1	2 mins.*1	2.5 mins.*1	4 mins.	7.5 mins.	15 mins.
DVD-R / 8x / 16x DVD+R / 8x / 16x DVD-RW / 6x DVD+RW / 8x	6x	1.25 mins.* <i>1</i>	1.6 mins.*1	2.2 mins.*1	3 mins.	5.5 mins.	11 mins.

Note that all times in the above table are approximate. Also that actual copy speed varies with the part of the disc being recorded.

^{*1} Titles recorded on DVD+R/+RW in SEP, SLP or EP modes cannot be high-speed copied.

Manual recording modes

The table below shows the approximate recording times for different DVD types in each manual recording mode, as well as the standard recording mode equivalents. For recording time on the HDD, see *Specifications* on page 137.

		Rec. time*	1	Resolution*2	
Level		Single-Layer DVD: DVD-R/-RW DVD+R/+RW DVD-RAM	Dual-Layer DVD: DVD-R DL DVD+R DL	Video mode Off (HDD) VR mode (DVD-R/-RW) DVD-RAM VR mode (DVD-R DL)	Video mode On (HDD) Video mode (DVD-R/-RW) DVD+R/+RW Video mode (DVD-R DL) DVD+R DL
MN 1 *3,4		802 mins.	1440 mins.		
MN 2 *3,4		720 mins.	1292 mins.		
MN 3 *3,4	SEP	600 mins.	1077 mins.	352 x 240 /	352 x 240 /
MN 4 *4	SLP	480 mins.	861 mins.	352 x 288	352 x 288
MN 5 *4		420 mins.	754 mins.		
MN 6 *4	EP	360 mins.	646 mins.		
MN 7		300 mins.	538 mins.	352 x 480 /	352 x 480 /
MN 8		270 mins.	484 mins.	352 x 576	352 x 576
MN 9	LP	240 mins.	431 mins.	480 x 480 /	
MN 10		230 mins.	413 mins.	480 x 576	
MN 11		220 mins.	395 mins.		_
MN 12		210 mins.	377 mins.	E 4.4 × 400 /	
MN 13		200 mins.	359 mins.	544 x 480 / 544 x 576	
MN 14 MN 15		190 mins. 180 mins.	341 mins. 323 mins.	044 / 070	
MN 16		170 mins.	305 mins.		_
MN 17		160 mins.	287 mins.		
MN 18		150 mins.	269 mins.		
MN 19		140 mins.	251 mins.		
MN 20		130 mins.	233 mins.		720 x 480 /
MN 21	SP	120 mins.	215 mins.		720 x 576
MN 22		110 mins.	197 mins.		
MN 23		105 mins.	188 mins.		
MN 24		100 mins.	179 mins.		
MN 25		95 mins.	170 mins.	720 x 480 /	
MN 26		90 mins.	161 mins.	720 x 576	
MN 27		85 mins.	153 mins.		
MN 28 MN 29		80 mins. 75 mins.	144 mins. 135 mins.		
MN 30		75 mins.	126 mins.		
MN 31		65 mins.	120 mins.		
MN 32	ХP	61 mins.	111 mins.		
LPCM	, vi	61 mins.	111 mins.		
XP+*5		mins.	mins.		

^{*1} Recording time may be slightly shorter for certain disc types or recording modes.

^{*2} The first figure refers to when the Input Line System is set to 525 System; the second when set to 625 System.

^{*3} Modes MN1 to MN3 not available when using DVD+R/+RW.

^{*4} Titles recorded at MN6 or lower cannot be high-speed copied to DVD+R/+RW.

 $^{^{*5}}$ XP+ mode is available for HDD recordings only. If set for a DVD recording, the DVD will be automatically recorded in MN32 mode.

- Levels separated by a bold line show where there is a noticeable change in picture quality.
- Audio recording in all manual recording modes is in Dolby Digital 2 ch format, except for LPCM mode, which is
 in Linear PCM format.
- · See also Recording on page 36.

Troubleshooting

Incorrect operation is often mistaken for trouble and malfunction. If you think there is something wrong with this component, please check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be rectified even after checking the points below, ask your nearest Pioneer authorized service center or your dealer to carry out repair work.

General

Problem	Remedy
The disc is automatically ejected after closing the disc tray	 Check that the disc is not an incompatible format disc (page 7). Check that the disc is loaded properly (aligned in disc tray and labelside up). Take out the disc and clean it (page 135). Check that the disc has a region code compatible with the recorder.
Can't eject a disc	 Turn off the power to this device and press and hold ▲ OPEN/CLOSE on the front of the unit for more than three seconds.
Can't play a disc	 Check that the disc is a compatible format disc (page 7). Take out the disc and clean it (page 135). Check that the disc is loaded properly (aligned in disc tray and labelside up). Press HDD/DVD to select the DVD. There may be condensation in the recorder. Leave the recorder for an hour or so for the condensation to evaporate. During HDD recording, you can't play discs that are recorded with a Line System different to the current recorder setting. DVD+R/+RW discs recorded using another recorder with copyonce protected recordings will not play in this recorder.
Can't record a disc	 Check that the disc is not an incompatible format disc (page 7). Some DVD-RAM discs are not recordable until they have been initialized (page 51). This can take up to an hour.
Remote control does not work	 If you connected this recorder to another Pioneer product using the CONTROL IN jack, point the remote control at the other component to use (page 14). Set the remote control to the same ID number as the recorder (page 117). (When the batteries run down, the remote mode is automatically reset to Recorder1.) Use the remote within its operating range (page 6). Replace the batteries (page 6).
All settings are reset	 If the recorder is unplugged (or there is a power failure) while the recorder is on, all the settings will be lost. Make sure that you switch the recorder into standby before unplugging the power cord.

Problem	Remedy
No picture	Check that everything is connected properly (page 14). Check that the connected TV and/or the AV amp/receiver is set to the correct input. The recorder may be set to progressive scan with an incompatible TV. Reset to interlace by pressing and holding the front panel ■ (Stop) button then pressing ▲ OPEN/CLOSE. If you are using an indoor antenna that requires power, make sure that Aerial Power in the Initial Setup menu is set to On or Auto (page 108). If the aerial/antenna is not connected properly, or if it is shorted, the Aerial Power setting will revert to Off automatically. Check the aerial connection and try making the setting again. When the HDMI signal is output, no video is output from the COMPONENT VIDEO OUT. If the channel selected on this unit is an HD broadcast, it cannot be displayed.
The picture from the external input is distorted	 If the video signal from the external component is copy-protected, you cannot connect via this recorder. Connect the component directly to your TV.
The picture is distorted	• Change the Input Line System setting (page 119). (You can also change it by pressing the ■ (Stop) button and INPUT SELECT on the front panel simultaneously with the recorder stopped.)
Screen is stretched vertically or horizontally	Make sure that the TV Screen Size setting (page 115) is correct for the kind of TV you have (see also page 134). If you have a widescreen TV, check its aspect ratio settings. This recorder's input switches into wide mode automatically according to the input signal. When the unit connected is not compatible with VIDEO ID-1 (widescreen signalling), set the connected component to output 4:3 aspect ratio (standard) video.
No sound or sound is distorted	Make sure that the amp/receiver or TV is set to the correct input and the volume turned up. There is no sound when the picture is paused, or during scanning or slow motion play. Press ▶ PLAY to resume regular playback. DTS discs can only be played if this recorder is connected to a DTS decoder or DTS compatible amp/receiver. If you have connected a suitable decoder, also make sure that the Initial Setup > Audio Out > DTS Out setting is On. Some 96 kHz discs do not output audio through the digital jack. In this case, switch the input of your amp/receiver to analog. Check the audio cable connections (page 14). If the sound is distorted, try cleaning the cable plugs.
Audio/subtitle language cannot be changed	Note that audio and subtitle languages cannot be changed during the recording of a digital broadcast. You can only use the audio track and subtitles for the language that were selected at the time of recording a digital broadcast. The audio track and subtitles cannot be changed to other languages.

Problem	Remedy
Cannot switch a bilingual programme	• During real-time copying it is not possible to switch audio channels. The main and sub channels are both output.
Can't play a disc recorded using this recorder on another player	 If the disc was recorded in DVD-R/-RW (Video mode) or DVD+R, make sure that it's finalized (page 50). Some players will not play recordable DVD discs, even when recorded in DVD-R/-RW (Video mode) or DVD+R and finalized. If the disc was recorded in VR mode, the other player must be specifically RW compatible in order to play it (page 7). Discs recorded with copy-once material cannot be played on non-CPRM compatible players (page 38). DVD+RW discs containing only a small amount of recorded material may not play on other players. Finalize the disc and try again.
During playback the picture is dark or distorted	When a copy-protected disc is played via a VCR, the picture will not display correctly. Connect the recorder directly to your TV.
Recorded contents are not clear or artefacts appear in areas of flat colour (due to MPEG compression; also known as block noise)	Change the recording mode to XP/SP:
Can't record or does not record successfully	Check that there is some remaining blank space on the DVD/HDD. For a DVD-R/-RW (Video mode) or DVD+R, check that the disc isn't already finalized. Check the limits on the number of titles and chapters on a disc: HDD: 999 titles VR mode: 99 titles, 999 chapters per disc Video mode disc: 99 titles per disc, 99 chapters per title DVD+R/+RW: 49 titles per disc, 99 chapters per title (max 254 chapters per disc) Check that the source you are trying to record is not copy protected. For a VR formatted disc, check that the disc isn't locked (page 100). Check that you are recording with the same TV system (PAL, NTSC, etc.) as the disc has already been recorded in. All recordings on a disc must be in the same TV system. When recording to the HDD, it is also necessary to set the Input Line System setting to match what you want to record (page 119). The power may have failed during recording.
Timer programme doesn't record successfully	When setting the recording channel, make sure you set the recorder's built-in TV tuner, not the TV's built-in tuner. When recording to a DVD-R/-RW (Video mode) or DVD+R/+RW, programmes that are copy-once protected cannot be recorded. Use a VR mode formatted disc for copy-once material (page 38). Two timer programmes may have overlapped, in which case only the earlier one will record completely. The power may have failed during recording.

Problem	Remedy
After briefly unplugging or after a power failure the front panel display shows ':' Front panel display shows 'LOCKED' when a button is pressed	 A backup battery inside the recorder keeps the clock and other settings from being reset when there is no power to the recorder. After unplugging or a power failure, the battery keeps all settings for a period of several minutes. Reset the clock and other recorder settings to use the recorder again. The Child Lock is on; turn off in order to use the recorder (page 48).
Can't use One Touch Copy (HDD to DVD)	 Make sure that there is a recordable DVD-R/-RW loaded with some free space for recording and fewer than 99 titles already on the disc. Also make sure that for a DVD-R/-RW (Video mode) or a DVD+R, the disc isn't finalized. Make sure there is a recordable DVD+R/+RW loaded with some free space for recording and fewer than 49 titles already on the disc. If you delete a title from a DVD+R/+RW disc, the number of remaining recordable titles may not decrease. Further recording is not possible on a finalized DVD+R. Check that there isn't a disc menu on the disc you're trying to use. If the title currently playing contains material that is copy-once protected, One Touch Copy will not work. If the currently playing HDD content was recorded in XP+ mode, the One Touch Copy feature can't be used. One Touch Copy can't be used for titles over eight hours long when copying to DVD+R/+RW (though you can use a DVD+R DL). One Touch Copy can't be used for MN1 to MN6, SEP, SLP or EP titles when copying to DVD+R/+RW. One Touch Copy doesn't work if the recorder is already recording to DVD.
Can't use One Touch Copy (DVD to HDD)	 Make sure that there is space available on the HDD and that there are fewer than 999 titles on the HDD. One Touch Copy doesn't work if the recorder is already recording to the HDD.
The device connected to the USB port is not recognized	 Check that the device is compatible with this recorder (page 22). Use a USB cable less than 5 m in length. Check that the USB cable is inserted fully. Check that the USB device is powered on. Try switching this recorder into standby mode and then back on. Try using the Restart USB Device option from the Initial Setup menu (page 118). If several USB devices (camera, USB memory, card reader, etc.) are connected at the same time, it's possible that only the first device connected to this recorder will be recognized.
File names are not displayed properly.	Files names that do not conform to the ISO8859-1 standard may not display correctly on this unit.

HDMI

Problem
The connected HDMI o
DVI device does not
display any picture
(and the front panel

HDMI indicator does

not light)

Remedy

- Try disconnecting then reconnecting the HDMI cable (while the power of both components is on).
 - Try switching the power of the HDMI/DVI device off then back on.
 - Try switching off the HDMI/DVI device and this recorder. Next, switch on the HDMI/DVI device and leave it for around 30 seconds, then switch on this recorder.
 - When you connect an HDMI-compatible device make sure of the following:
 - The connected device's video input is set correctly for this unit.
 - The cable you're using is fully HDMI-compliant. Using a non-standard cable may result in no picture being output.
 - Don't use several HDMI cables connected together. Use a single cable to connect devices together.
 - When you connect a DVI-compatible device make sure of the following:
 - The connected device's video input is set correctly for this unit.
 - The DVI terminal on the connected device is HDCP-compatible.
 - The connected device is compatible with NTSC (720 x 480i/p, 1280 x 720p, 1920 x 1080i/p) and PAL (720 x 576i/p, 1280 x 720p, 1920 x 1080i/p) video input.
 - If the recorder's internal HDD is damaged or broken, there will be no HDMI output.
 - Not all HDCP-compatible DVI devices will work with this recorder.

No video from the HDMI output

• If you choose a setting that is incompatible with your TV you may not be able to see any picture at all. In this case, press ▲ OPEN/CLOSE while holding down the ■ (Stop) button on the front panel to switch the setting (this also switches *Component Video Out* on page 110 to the default setting).

There's no sound from the connected HDMI or DVI device

- There is no sound when using a DVI terminal.
- Some HDMI-compatible devices do not output sound (check with the manual that came with the connected device).

The power automatically turns on

• This unit's power may be turned on each time you turn on the power for a connected plasma television. If you do not want this unit to be turned on in this way, set this unit's **HDMI Control** to **Off** (page 117).

Can't record video

• When using HDMI Control to record, you must make sure that the channel information for the plasma television matches that of this unit. If the channel information does not match you cannot make recordings. Use the **Auto Channel Setting** function to set this unit's channel information (page 108).

Problem

Remedy

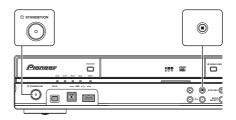
HDMI Control does not respond

- **HDMI Control does not** Verify that the HDMI cable is firmly connected (page 19).
 - Check whether HDMI Control is set to On for this unit and the device connected to this unit. For more information, refer to the operating instructions of your plasma television or AV system (amplifier or AV receiver etc.).
 - Depending on the type of plasma television, some HDMI input terminals do not support the HDMI Control function. For details, see the operating instructions supplied with your plasma television.
 - HDMI Control may not operate properly if you do not use an HDMI cable that supports the HDMI 1.3 Specification.
 - This function may not work properly if you have multiple recorders connected to a single plasma television or AV system. For more information refer to the operating instructions of your plasma television or AV system.
 - Controls may not function properly in certain situations, such as immediately after you have connect an HDMI cable, turn this unit's power off or remove the power cable for this unit or the connected component. If you experience any problems, set HDMI Control to On for all connected units, and then display the pictures stored on this unit on your plasma television to improve the situations.
 - Check whether the connected component supports HDMI Control or not.
 - Certain functions are not supported on with plasma televisions and AV systems.
 - We cannot guarantee this unit will work with HDMI Controlcompatible components other than those made by Pioneer. When using HDMI Control-compatible components manufactured by companies other than Pioneer, set the **HDMI Control** to **Off** (page 117).

If the unit does not operate normally due to external effects such as static electricity, disconnect the power plug from the outlet and insert again to return to normal operating conditions.

If the picture freezes and the front panel and remote control buttons stop working

- Press (Stop) then try restarting playback.
- Press the front panel **O STANDBY/ON** button to switch the power off, then switch back on and restart playback. If the power fails to switch off, press and hold **O STANDBY/ON** for five seconds until the power switches off.



On-screen displays

The table below shows a list of error messages that you may encounter when using the recorder and an explanation of their meaning.

Message	Explanation/Action
Initializing disc. Please wait a moment.	When you load a blank DVD-RW or DVD+RW disc, the recorder automatically initializes it.
Incompatible region number.	The disc loaded has an incompatible region number for the recorder and so will not play.
Cannot record any more titles. No more space for file management data.	The disc control data limit has been reached, or the maximum number of chapters and/or titles has been reached. Erase titles/chapters or combine chapters.
This disc cannot be recorded. Undo the finalization.	The disc was finalized on a non-Pioneer DVD recorder. Undo the finalization in order to recording/editing.
Cannot play this disc. This disc cannot be recorded. Cannot read the CPRM information. Could not record the information to the disc. Cannot edit. Could not initialize disc. Could not complete finalization successfully. Could not undo finalization successfully. Could not successfully unlock the disc.	The disc may be dirty or damaged. Take out the disc, clean it and retry. If the error persists, use a new disc. If the error appears even with a new disc, please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
Incompatible or unreadable disc.	The disc loaded is a playback-only disc type. This display may also appear if the disc is dirty or damaged.
 Cannot record to a disc that is not CPRM compatible. Cannot record this content using Video mode recording. This video cannot be recorded to DVD+R/+RW. 	The video source is copy-once protected. Use a VR mode DVD-R/-RW disc with CPRM for recording.
This content is copy protected.	The video source is copy-protected and cannot be recorded.
Incorrect CPRM information.	The recorder could not read the CPRM information. The recorder may be damaged — please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.

Message	Explanation/Action
Repairing disc.Repairing the HDD.	During recording, the power was cut. This display appears when the power is restored.
Could not repair the disc.	The recorder was unable to repair the disc after a power cut. The contents of the recording will be lost.
Overheating has stopped operation. Press DISPLAY to clear message.	The internal temperature of the recorder has exceeded the operating limit. If this message reappears, please ask your nearest Pioneerauthorized service center or your dealer to carry out repairs.
HDD optimization is recommended. This can be done using Disc Setup.	The HDD should be optimized (basically, HDD housekeeping) to maintain playback and recording performance.
Please perform HDD optimization. This can be done using Disc Setup.	The HDD is in more urgent need of optimization in order to maintain performance.
The HDD has not been sufficiently optimized. Please optimize again.	If this message appears repeatedly after optimizing the HDD it is likely that there is not enough free space on the HDD for optimization to complete properly. Please erase some titles from the HDD and optimize again.
• An error occurred. Please consult the service center. Note that contents on the HDD may be erased when servicing this unit.	This message is displayed when information from the HDD cannot be read. The HDD may be damaged or broken. Please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
The Hard Disk Drive info is incorrect. Use the Disc Setup menu to reinitialize.	As the HDD info cannot be properly read, no new recordings can be made. Reinitializing the HDD (page 102) may result in your being able to make recording again. Note that reinitializing the HDD will erase all recorded contents, including protected files.
This signal's TV system is different from the recorder's setting.	The TV system (PAL, NTSC, etc.) of the current channel is different from the TV system settings of this recorder.
Recording failed due to a TV system mismatch. Press DISPLAY to clear message.	The timer recording failed because the TV system of the channel set for recording was different from the setting of the recorder.
Playback has stopped because the TV system is different than the recording.	During recording or timer recording standby, the TV System (PAL, NTSC, etc.) of the playback video changed, causing playback to stop automatically.
There is no DV input or the input signal is unrecordable.	No signal was detected at the DV IN jack. This may appear if a blank section of DV tape is playing in the connected camcorder.

Message	Explanation/Action
No DV camcorder connected.	The camcorder is not connected properly, or the camcorder is switched off.
You cannot connect more than one DV camcorder at a time.	This recorder's DV jack supports connection to just one camcorder.
Cannot operate the DV camcorder.	This recorder cannot operate the DV camcorder. Try switching off the camcorder then turn it back on again.
Could not operate the DV camcorder.	This recorder was not able to operate the DV camcorder.
The DV camcorder is not set for playback. Please select playback mode on the DV camcorder.	The camcorder is in camera mode. Switch it to playback mode.
The printer is not ready or is not connected. Please check the printer.	This message is displayed when communication could not be established with the printer. See the <i>Troubleshooting</i> section if you do not know the cause.
• Printing has been cancelled because	This message is displayed when there is a printer error during printing. After checking the printer for the cause of the error, either reconnect the printer and start the printing job again, or select "Yes" to resume printing (select "No" to cancel the print job). See also the operating instructions that came with your printer for possible causes of print errors.

Front-panel displays

The table below shows a list of error messages that you may encounter when using the recorder and an explanation of their meaning.

Message	Explanation/Action
• E01	The HDD may be damaged or broken. Please ask your nearest Pioneer-authorized service center or your dealer to carry out repairs.
• E02	As the HDD info cannot be properly read, no new recordings can be made. Reinitializing the HDD (page 102) may result in your being able to make recording again. Note that reinitializing the HDD will erase all recorded contents, including protected files.

Language code list

Language (Language code letter), Language code

Japanese (ja), 1001 English (en). 0514 French (fr), 0618 German (de), 0405 Italian (it), 0920 Spanish (es), 0519 Chinese (zh), 2608 Dutch (nl), 1412 Portuguese (pt), 1620 Swedish (sv), 1922 Russian (ru), 1821 Greek (el). 0512 Polish (pl), 1612 Czech (cs), 0319 Norwegian (no), 1415 Afar (aa), 0101 Abkhazian (ab), 0102 Afrikaans (af), 0106 Amharic (am), 0113 Arabic (ar), 0118 Assamese (as), 0119 Aymara (ay), 0125 Azerbaijani (az), 0126 Bashkir (ba), 0201 Byelorussian (be), 0205 Bulgarian (bg), 0207 Bihari (bh). 0208 Bislama (bi), 0209 Bengali (bn), 0214 Tibetan (bo), **0215** Breton (br). 0218 Catalan (ca), 0301 Corsican (co), 0315 Welsh (cy), 0325 Danish (da), 0401

Bhutani (dz), **0426** Esperanto (eo), 0515 Estonian (et), 0520 Basque (eu), **0521** Persian (fa), 0601 Finnish (fi), 0609 Fiji (fj), 0610 Faroese (fo), 0615 Frisian (fy), 0625 Irish (ga), 0701 Scots-Gaelic (gd), 0704 Galician (gl), 0712 Guarani (gn), 0714 Gujarati (gu), 0721 Hausa (ha), 0801 Hindi (hi). 0809 Croatian (hr), 0818 Hungarian (hu), 0821 Armenian (hy), 0825 Interlingua (ia), 0901 Interlingue (ie), 0905 Inupiak (ik), 0911 Indonesian (in). 0914 Icelandic (is), 0919 Hebrew (iw), 0923 Yiddish (ji), 1009 Javanese (jw), 1023 Georgian (ka), 1101 Kazakh (kk), 1111 Greenlandic (kl), 1112 Cambodian (km), 1113 Kannada (kn), 1114 Korean (ko), 1115 Kashmiri (ks), 1119 Kurdish (ku), 1121

Kirghiz (ky), 1125 Latin (la). 1201 Lingala (In), 1214 Laotian (lo), 1215 Lithuanian (It), 1220 Latvian (Iv), 1222 Malagasy (mg), 1307 Maori (mi). 1309 Macedonian (mk), 1311 Malayalam (ml), 1312 Mongolian (mn), 1314 Moldavian (mo). 1315 Marathi (mr), 1318 Malay (ms), 1319 Maltese (mt), 1320 Burmese (mv). 1325 Nauru (na), 1401 Nepali (ne), 1405 Occitan (oc), 1503 Oromo (om), 1513 Oriya (or), 1518 Panjabi (pa), 1601 Pashto, Pushto (ps), 1619 Quechua (qu), 1721 Rhaeto-Romance (rm), 1813 Kirundi (rn). 1814 Romanian (ro), 1815 Kinyarwanda (rw), 1823 Sanskrit (sa), 1901 Sindhi (sd). 1904 Sangho (sg), 1907

Serbo-Croatian (sh), 1908 Sinhalese (si). 1909 Slovak (sk), 1911 Slovenian (sl), 1912 Samoan (sm), 1913 Shona (sn), 1914 Somali (so). 1915 Albanian (sq), 1917 Serbian (sr), 1918 Siswati (ss), 1919 Sesotho (st), 1920 Sundanese (su), 1921 Swahili (sw), 1923 Tamil (ta), 2001 Telugu (te), 2005 Tajik (tg), 2007 Thai (th), 2008 Tigrinya (ti), 2009 Turkmen (tk), 2011 Tagalog (tl), 2012 Setswana (tn), 2014 Tonga (to), 2015 Turkish (tr), 2018 Tsonga (ts), 2019 Tatar (tt), 2020 Twi (tw), 2023 Ukrainian (uk), 2111 Urdu (ur), 2118 Uzbek (uz), 2126 Vietnamese (vi), 2209 Volapük (vo), 2215 Wolof (wo), 2315 Xhosa (xh), 2408 Yoruba (yo), 2515 Zulu (zu), 2621

Country/Area code list

Country/Area, Country/Area code, Code letter

Argentina, 0118, ar Australia, 0121, au Austria, 0120, at Belgium, 0205, be Brazil, 0218, br Canada, 0301, ca Chile, 0312, cl China, 0314, cn Denmark, 0411, dk Finland, 0609, fi France, 0618, fr Germany, 0405, de Hong Kong, 0811, hk India, 0914, in Indonesia, 0904, id Italy, 0920, it Japan, 1016, jp Republic of Korea, 1118, kr Malaysia, 1325, my Mexico, 1324, mx Netherlands, 1412, nl New Zealand, 1426, nz Norway, 1415, no Pakistan, 1611, pk Philippines, 1608, ph Portugal, 1620, pt Russian Federation, 1821, ru Singapore, 1907, sg Spain, 0519, es Sweden, 1905, se Switzerland, 0308, ch Taiwan, 2023, tw Thailand, 2008, th United Kingdom, 0702, gb USA, 2119, us

Screen sizes and disc formats

When viewing on a st	andard TV or monitor	
Screen format of disc	Setting	Appearance
16:9	4:3 (Letter Box)	The programme is shown in widescreen with black bars at the top and bottom of the screen.
	4:3 (Pan & Scan)	The sides of the programme are cropped so that the picture fills the whole screen.
4:3	4:3 (Letter Box) 4:3 (Pan & Scan)	The programme is presented correctly on either setting.
When viewing on a w	idescreen TV or monitor	
Screen format of disc	Setting	Appearance
16:9	16:9	The programme is presented in widescreen.
4:3	16:9	Your TV will determine how the picture is presented — check the manual that came with the TV for details.

Handling discs

When holding discs of any type, take care not to leave fingerprints, dirt or scratches on the disc surface. Hold the disc by its edge or by the center hole and edge.

Damaged or dirty discs can affect playback and recording performance. Take care also not to scratch the label side of the disc. Although not as fragile as the recorded side, scratches can still result in a disc becoming unusable.

Should a disc become marked with fingerprints, dust, etc., clean using a soft, dry cloth, wiping the disc lightly from the center to the outside edge. Do not wipe with a circular motion.



If necessary, use a cloth soaked in alcohol, or a commercially available CD/DVD cleaning kit to clean a disc more thoroughly. Never use benzine, thinner or other cleaning agents, including products designed for cleaning vinyl records.

Storing discs

Although CDs and DVD discs are more durable than vinyl records, you should still take care to handle and store discs correctly. When you're not using a disc, return it to its case and store upright. Avoid leaving discs in excessively cold, humid, or hot environments (including under direct sunlight).

Don't glue paper or put stickers onto the disc, or use a pencil, ball-point pen or other sharp-tipped writing instrument. These could all damage the disc.



For more detailed care information see the instructions that come with discs.

Do not load more than one disc into the recorder.

Damaged discs

Discs spin at high speed inside the recorder. If you can see that a disc is cracked, chipped, warped, or otherwise damaged, don't risk using it; you could end up damaging the recorder.

This recorder is designed for use with conventional, fully circular discs only. Use of shaped discs is not recommended for this product. Pioneer disclaims all liability arising in connection with the use of shaped discs.



Cleaning the pickup lens

The HDD/DVD recorder's lens should not become dirty in normal use, but if for some reason it should malfunction due to dust or dirt, consult your nearest Pioneer-authorized service center. Although lens cleaners are commercially available, we do not recommend using them since some may damage the lens.

Condensation

Condensation may form inside the recorder if it is brought into a warm room from outside, or if the temperature of the room rises quickly. Although the condensation won't damage the recorder, it may temporarily impair its performance. For this reason you should leave it to adjust to the warmer temperature for about an hour before switching on and using.

Hints on installation

We want you to enjoy using this unit for years to come, so please bear in mind the following points when choosing a suitable location for it:

Do...

- ✓ Use in a well-ventilated room.
- ✓ Place on a solid, flat, level surface, such as a table, shelf or stereo rack.

Don't...

- ★ Use in a place exposed to high temperatures or humidity, including near radiators and other heat-generating appliances.
- ✗ Place on a window sill or other place where the recorder will be exposed to direct sunlight.
- Use in a dusty or damp environment or in a room where it will be exposed to excessive cigarette smoke.
- **X** Place directly on top of an amplifier, or other component in your stereo system that becomes hot in use.
- **X** Use near a television or monitor as you may experience interference especially if the television uses an indoor antenna.
- **X** Use in a kitchen or other room where the recorder may be exposed to smoke or steam.
- Use on a thick rug or carpet, or cover with cloth this may prevent proper cooling of the unit.
- X Place on an unstable surface, or one that is not large enough to support all four of the unit's feet.

Moving the recorder

If you need to move the recorder, first remove the disc, if loaded, and close the disc tray. Next, press & STANDBY/ON to switch the power to standby, checking that the POWER OFF indication in the display goes off. Wait at least two minutes. Lastly, disconnect the power cord. Never lift or move the unit during playback or recording — discs rotate at a high speed and may be damaged.

Resetting the recorder

If you need to, you can reset the recorder to all its factory settings.

- 1 Make sure that the recorder is on.
- 2 Using the front panel controls, press and hold (Stop) and press © STANDBY/ON.

The recorder turns off with all settings reset.

Specifications

General

Power requirements 220 V to 240 V, 50 Hz/60 Hz
Power consumption
Power consumption in standby mode 0.69 W
(Front panel display: off)
Weight
Dimensions
Operating temperature +5 °C to +35 °C
Operating humidity
5 % to 85 % (no condensation)
TV system NTSC (external input only)
/PAL/SECAM

Readable discs

DVD-Video, DVD-RW, DVD-R, DVD+R, DVD+RW, DVD-RAM, Video CD, Super VCD, CD, CD-R/-RW (WMA, MP3, JPEG, CD-DA, DivX)

Recording discs and formats

DVD-R/-RW: VR mode and Video mode DVD+R/+RW: +VR mode DVD-RAM: VR mode DVD-R DL: VR mode and Video mode DVD+R DL: +VR mode

Video recording format

Sampling frequency	13.5 MHz
Compression format	MPFG

Audio recording format

Sampling frequency 48 kHz Compression format Dolby Digital or Linear PCM (uncompressed)

Recording time HDD (160 GB)

XP+ Approx. 23 h
Fine (XP) Approx. 34 h
Standard Play (SP) Approx. 68 h
Long Play (LP) Approx. 136 h
Extended Play (EP) Approx. 204 h
Super Long Play (SLP) Approx. 272 h
Super Extended Play (SEP) Approx. 340 h
Manual Mode (MN)Approx. 23 h to 455 h

DVD-R/-RW, DVD+R/+RW, DVD-RAM

5 15 16 100, 5 15 116, 110 10 10 10 10 10 10 10 10 10 10 10 10
Fine (XP) Approx. 1 h
Standard Play (SP) Approx. 2 h
Long Play (LP) Approx. 4 h
Extended Play (EP) Approx. 6 h
Super Long Play (SLP) Approx. 8 h
Super Extended Play (SEP) Approx. 10 h
(DVD-R/-RW, DVD-RAM only)
Manual Mode (MN)
DVD-R/-RW/-RAM Approx. 1 h to 13 h
DVD + PV + PW Approx 1 h to 8 h

DVD-R DL/DVD+R DL

Fine (XP)
Standard Play (SP) Approx. 3 h 35 m
Long Play (LP) Approx. 7 h 11 m
Extended Play (EP) Approx. 10 h 46 m
Super Long Play (SLP) Approx. 14 h 21 m
Super Extended Play (SEP) Approx. 17 h 57 m
(DVD-R DL only)
Manual Mode (MN)
DVD-R DL Approx. 1 h 51 m to 24 h
DVD+R DI Approx. 1 h 51 m to 14 h 21 m

Timer

Programmes	1 month/32 programmes
Clock	Quartz lock (24-hour digital display)

Tuner (analog)

Receivable channels

SECAM B/G			DAL I	
	PAL B/G Frequency Channel		Frequency	Channel
VHF (low)	47 MHz to 89 MHz	E2 to E4	44 MHz to 89 MHz	A to C
		X to Z		X to Z
VHF (high)	104 MHz to 300 MHz	E5 to E12	104 MHz to 300 MHz	D to J
		S1 to S20		11, 13
		M1 to M10		S1 to S20
		U1 to U10		
Hyper	302 MHz to 470 MHz	S21 to S41	302 MHz to 470 MHz	S21 to S41
UHF	470 MHz to 862 MHz	E21 to E69	470 MHz to 862 MHz	E21 to E69

	SECAM I		
	PAL D/	к ——	
	Frequency	Channel	
VHF (low)	49 MHz to 94 MHz	R1 – R5	OTEREO
VHF (high)	104 MHz to 300 MHz	R6 - R12	STEREO B/G - A2
		S1 - S20	I - NICAM
Hyper	302 MHz to 470 MHz	S21 - S41	B/G - NICAM
UHF	470 MHz to 862 MHz	E21 - E69	D/K - NICAM

Tuner (digital)

Receiving systemDVB-1 (2 K/8 K COFDM)
Tuner VHF/UHF
VHF band III (174 MHz to 230 MHz)
UHF band IV, V (519 MHz to 820 MHz)
Auto Channel Preset 999 ch, Auto Preset,
Auto Label, Auto Sort
Audio Stereo MPEG layer I/II
Audio Decoder
Sampling frequencies: 32 kHz, 44.1 kHz, 48 kHz

This product's digital tuner has been confirmed for use in Australia.

Input/Output

Antenna 75 Ω IEC 169-2 connector for VHF/UHF in/out (analog) 75 Ω IEC 169-2 connector for VHF/UHF in/out (digital) Video input
Input 3 (rear) Input level
$ \begin{array}{llllllllllllllllllllllllllllllllllll$
S-Video input
Y (luminance) - Input level 1 Vp-p (75 Ω) C (colour) - Input level
S-Video output
Component video output Output level Y: 1.0 Vp-p (75 Ω) P _B , P _R : 0.7 Vp-p (75 Ω)
Jacks RCA jacks RGB input. AV2 (Input 1) Input level 0.7 Vp-p (75 Ω) Jacks AV connector (Input 1) RGB output AV1
Output level 0.7 Vp-p (75 Ω) Jacks AV connector (AV1) Audio input AV2 (Input 1), Input 2 (front), Input 3 (real) L/R
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
RCA jacks (Input 2) Audio output
RCA jacks (Output) Control input
Digital audio output
(i.LINK/IEEE 1394 standard) USB

AV Connectors (21-pin connector assignment)

AV connector input/output 21-pin connector This connector provides the video and audio signals for connection to a compatible colour TV or monitor.

1 3 5 7 9 11 13 15 17 19 21



2 4 6 8 10 12 14 16 18 20

PIN no.	AV1 (RGB)-TV / AV2 (INPUT 1)
1	.Audio 2/R out / Audio 2/R out
2	– / Audio 2/R in
11	G out / G in
3	. Audio 1/L out / Audio 1/L out
6	– / Audio 1/L in
	R or C out / R or C in
4	GND
17	GND
7	B out / B in
19	. Video out or Y out / Video out
20	–/ Video in or Y in
8	Status
21	GND

Supplied accessories

Remote control1
Dry cell batteries (AA/R6P)
Audio/Video cable (red/white/yellow)1
RF antenna cable1
Power cable
Operating Instructions

Note: The specifications and design of this product are subject to change without notice, due to improvement.

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